SOCIAL ACTION

A Quarterly Review of Social Trends

International Year of the Child—*Geoghegan*

The [illegible] Report—*Fonseca*

[illegible] to Bangalore—*Ulrich*

Low Cost Housing—*Kores*

Migration and Ecological Structure—*Kamin*

Trends in Industrial Relations—*Tulpule*

INDIAN SOCIAL INSTITUTE

SOCIAL ACTION

Jan-March 1979 Volume 29 No. 1

The Editorial Board of SOCIAL ACTION does not necessarily endorse the views of its contributors.

SOCIAL ACTION is published on the 15th of January, April, July and October. Those who do not receive copies in time should write to the Business Manager within three months of the date of publication. After that free replacement copies may not be available.

Articles in SOCIAL ACTION are Indexed in *ICSSR Research Abstracts*, *Sociology of Education Abstracts* and *Book Review Index*. SOCIAL ACTION has been published continuously from 1951. A microfilm edition is available from University Microfilms International, Ann Arbor, Michigan 48106, USA.

Subscriptions (Postage free)

	1 Year	2 Years
Personal		
India	Rs 20	Rs 35
Foreign	$ 6 50	$ 12
Institutional		
India	Rs 30	Rs 55
Foreign	$ 10	$ 18

Cheques should be made out in favour of SOCIAL ACTION. Payment of Indian subscriptions by Money Order/bank draft. For outstation cheques add Rs 4 for bank charges.

Subscriptions by calendar year only.

Concessional rate for students in India only : Rs 12 for one year.

SOCIAL ACTION

A Quarterly Review of Social Trends

JAN-MAR 1979 VOLUME 29 NO. 1

CONTENTS

IYC 1979: UN Agencies and Children in Developing Countries

Michael Geoghegan

The UN Declaration of the Rights of the Child in 1959 emphasises, by implication, the importance of the cooperation of the community of nations in the common task of meeting the basic needs—nutrition, health, education—of children in developing countries. This paper traces the involvement of UN organisations, especially UNICEF, UNDP and WHO, in a wide range of activities for the benefit of children living in conditions of severe deprivation. Thus, the focus on children in the International Year of the Child 1979, is part of a long-term strategy to assist developing countries to formulate and implement national child development policies within the overall framework of the development of human resources.

In 1979 the world will observe the Year of the Child. The implications of this action by the UN General Assembly to focus attention on the child during 1979 are enormous. The child born in 1979 will "come of age" and reach 21 years in the year 2000. This means that the Third millenium, will directly involve as adults those children being born now. The world has 21 years to work for a better environment for its children and the young adults of the future.

This article examines the needs of the child as discerned today and ways of meeting them, and the rights of the child as set forth by the UN General Assembly. It will also discuss action to date by the UN system and the role of UNICEF in particular; finally, an attempt will be made to outline possible direct action for children in the 1980's and in the future.

Needs and Rights of the child

The necessity of planning for the needs of children may be indicated from the following facts:

The author is a senior UNDP officer with over 15 years' experience in UK, Colombo Plan, and other UN assisted development programmes. He has written extensively on aspects of Third World social and economic development.

—20 per cent of all children born in a (typical) underdeveloped country, will have died within a year of their birth;
—of the remainder many will die during the following preschool years, or will be handicapped throughout their lives due to childhood disease or lack of adequate nutrition;
—of those who survive until school age, many will not get to primary school and only a very small proportion will have the chance of acquiring even a rudimentary education;
—of those who leave primary school only a few will get vocational training;
—and the majority of adolescents will swell the ranks of the unskilled and the unemployed.

The foregoing facts highlight the needs of children in developing countries. These needs have been articulated more fully in the Declaration of the Rights of the Child, unanimously adopted by the United Nations General Assembly in 1959. The Rights are to:

1. A name and nationality; and equal status for every child at birth.
2. Maternal protection and family care.
3. Health care and protection against diseases.
4. Adequate nutrition (which changes with the child's age), and adequate shelter.
5. Education.
6. Play and recreation.
7. Social protection irrespective of colour, race, language, etc.
8. Protection from work for the child, and from exploitation for youth.
9. Special care for physically, mentally or socially handicapped children, such as orphans, retarded children, etc.
10. Protection from racial, religious and other forms of discrimination.

Meeting the needs of the child

It is in the following areas that much of the specific action envisaged in the interest of children and adolescents has to be concentrated:

(i) Development of services of health, maternal and child health, family planning, supply of potable water, and environmental sanitation;
(ii) improved nutrition, especially for infants and young children and pregnant and nursing mothers;

(iii) development of human resources, including provision of minimum educational opportunities for children, educational and vocational preparation of adolescent boys and girls, and expansion of opportunities for absorbing adolescents and youth entering the labour market into productive work; and

(iv) development of appropriate welfare services, community institutions and voluntary agencies to provide, in particular, for the growth and development of the young child. More generally, it will be necessary to strengthen the family and the community, to prepare citizens for responsible parenthood, and to develop skills and opportunities for gainful and productive work for girls and women.[1]

Health

In most developing countries there is a general, and often extreme, scarcity of staff and facilities in the rural areas. The situation is only slightly better in towns. An infant death rate three or four times as high as in industrialised countries and a young child death rate 30 or 40 times as high have, as their main causes, respiratory and diarrheal diseases, malnutrition and vector-borne and parasitic diseases, that have largely disappeared from the industrialised countries. Moreover, as WHO has stressed, the health needs of children cannot be considered separately from the health needs of the family. There is a need to link up programmes for the improvement of health and diet for the whole family with health programmes for the children.

Nutrition

WHO has said that "adequate nutrition must be given the highest priority amongst the needs of children." Most experts emphasise the importance of providing adequate protein especially to the young child. If development proceeds from the application of brain power, it is crucial to remember that the human brain mainly forms before the age of three years. and that this is largely a process of protein synthesis. Moreover the nutritional quality of various sources of protein must be taken into account. Children suffering from a deficiency of calories or from diseases cannot absorb or convert their protein intake. It is an unfortunate fact that the main cereals contain

1. See UN ECOSOC E/ICEF/627, Children in the Second Development Decade: Priorities for Planning, New York, April 1973.

a smaller proportion of protein than is required for children. Table 1 gives the (average) protein content of different staple crops.

Table 1 : Protein Content of Staple Crops

Crop	Protein Content (per cent)
Maize	10
Wheat	10
Yam	5-10
Rice	7
Cassava	1

The pattern of consumption in some developing countries is compared (in Table 2) with that of the United Kingdom.

Table 2 : Pattern of Consumption in Developing Countries

		Average daily per capita supply in grams	
Country	Cereals	Meat, Fish, etc.	Milk, etc.,
Brazil	600	104	155
India	370	8	122
Philippines	489	25	47
U.K.	485	225	559

Malnutrition is "a polite word for semi-starvation among children." It leads to the growth of diseases. Protein deficiencies, in particular, give birth to many diseases: e.g. kwashiorkor, a disease in which the child becomes swollen with oedema. Vitamin deficiencies (research has isolated Vitamin A as the main one) can lead to blindness. Rickets are caused by the absence of Vitamin D. Some other diseases caused by malnutrition are anaemia, infectious diseases and growth failure and diseases of the brain. The last mentioned are often the most dangerous as the damage is sometimes incurable and permanent.

Clearly, malnutrition is common in developing countries. Its causes are complex and inter-related. Poverty, undoubtedly, is the main one, but dietary habits of the people also contribute to it. To combat malnutrition among children we would have not only to expand the supply of nutritional (i.e. high protein) food but also overcome any customs and superstitions which may prevent the adoption of a balanced diet, often specifically related to the diet of children. In urban areas, the problem of malnutrition is often even more severe than in the villages. Bad sanitary conditions aggravate the problem, in both town and country.

•

Existing programmes of UNICEF for the improvement of child nutrition try to take account of the factors outlined above, and they include, among others, milk and vitamin distribution, and education concerning nutrition. Efforts should be directed towards making people—especially mothers—aware of the seriousness of the problem and show concrete ways of improving the quality of food provided for children. The protein enrichment of traditional foods, in various ways, is another useful contribution to this end.

Education

Less than half of the world's school age children are in school. Table 3 gives the ratio of school-going children to total population.

About 20 per cent of the world population is in the age-group 5-14, but this proportion is lower in the developed and higher in the underdeveloped countries. Thus, even the gap between developed and developing regions fails to show the full extent of the difference. The problems of providing education at different levels would require a separate special discussion. Briefly, in developing countries, there is a shortage of qualified teachers, school buildings, equipment, textbooks, teaching materials, etc., at primary level. At the secondary levels, besides the problems just mentioned, there is a great need to do away with antiquated methods and to revise the curriculum, particularly in science and technical education. In may developing countries secondary and technical education is not yet free. This imposes a heavy burden on parents. Moreover, education is hampered by very limited financial and budgetary resources.

Table 3 : Ratio of School-Going Children to Total Population

Region	Ratio (per cent)
Africa	7.2
North America	23.5
Latin America	13.1
Asia	10.3
Europe	15.5
USSR	16.0
World Total	12.4

There is a need to link up education programmes with the requirements of economic development in general. This again requires careful planning: resource allocation within the education sector must take into account the needs of economic development. There is need to define a national educational policy, to set out the relation between the various levels and branches of the education system, in view of

development requirements. Special attention must be paid to preparing young people for more productive work in the agricultural sector. Vocational training needs to be further emphasised.

Increases in enrolment, especially at secondary and higher levels, in developing countries, serve gradually to reduce the enrolment gap, but they also impose tremendous new strains on financial and absorptive capacity (for the higher levels).

Social Services

In a dynamic and developing society, children and youth are exposed to many pressures. Social welfare services can play a useful part in alleviating some of the pressures and directing them into productive channels. These social services must aim at strengthening family bonds, developing community relationships, reducing crime and juvenile delinquency and combatting the undesirable effects of urbanisation and slum-living. Provision must be made for orphans and abandoned children, as well as for children who are chronically ill or crippled.

Action by the UN system

The United Nations family of organisations took children seriously from the very first days of its existence, by establishing an Emergency Fund to help children. This fund, was initially specifically to help children and ensure that they were not forgotten in the postwar chaos and the growing amounts of relief aid being provided.

The Fund was called the United Nations International Children's Emergency Fund (UNICEF) and most of its initial efforts were directed to helping children in parts of Europe and Asia most seriously affected by the war, during the second half of the 'Forties'. As Europe began to rehabilitate itself the emphasis of UNICEF increasingly shifted to assisting children in developing countries of Asia, Africa and Latin America, especially the growing number of countries which had recently acquired independence from colonial rule.

While UNICEF led the way, other agencies and programmes of the UN system became increasingly involved in assistance to the developing countries, first among them the World Bank (in its earlier form IBRD) for capital aid, and the inter-agency fund known as the Expanded Programme for Technical Association (EPTA), set up in 1949 for the provision of technical experts and training. This programme provided funding for small scale development projects created by agencies of the UN system.

Principal among them of direct relevance for children were United Nations Educational, Scientific and Cultural Organisation

(UNESCO) and World Health Organisation (WHO). The activities of other agencies were more or less relevant to children. For instance, the work of the International Refugee Organisation (IRO, latter to become the United Nations High Commission for Refugees, UNHCR), had direct relevance for all children with refugee status.

The International Labour Organisation (ILO) continued to help children in various ways. For example, they set minimum labour standards to discourage the exploitation of child labour or of nursing mothers. ILO established vocational training schools and systems in many countries and its technical assistance activities were also of value for children preparing for technical education.

The programmes of the Food and Agriculture Organisation (FAO) were directed at providing technical assistance for the development of agriculture, fisheries and forestry. While typical FAO projects are not directly aimed at children, the basic support for food production inherent in many of them could be seen to have a broad developmental impact helping developing societies and the children in them. In addition, their nutrition programmes are often for children and other malnourished groups.

UN world demographic statistics suggest that mortality is highest among infants up to five years, especially in less and least developed countries. The WHO Constitution, adopted in 1948, recognises this in stating that the "healthy development of the child is of basic importance." Since that time WHO proclaimed as its goals the attainment of health and of primary health care for all by the year 2000. WHO activities in the field of nutrition, aid to nursing mothers and epidemic control, all have directly contributed to better conditions for children, especially in developing countries.

During the 1950 and early 1960s, the UN system evolved with the increasing application of capital aid from IBRD and its sister agency, created in 1961, the International Development Assistance (IDA). This capital aid was initially for infrastructure projects—bridges, roads, dams, electrical systems—all supporting economic development. In the last ten years however, the World Bank group has become involved in socially-oriented projects for least developed countries, iucluding integrated rural and regional development projects, and technical education support.

Meanwhile, the UN system's technical and preinvestment assistance grew in dimensions and scale. To the initial work of the EPTA was added the UN Special Fund (set up in 1957). Both organisations were merged in 1966 to form the UN Development Programme, which continues, to finance the largest part of technical cooperation activities mostly by specialised agencies. Many of these activities in various ways benefitted children. Meanwhile, the UN

system established new instrumentalities. The UN's own food aid programme, the World Food Programme, became increasingly and dynamically involved in the 1960s in assisting less privileged groups, including children.

In the early seventies the UN set up a fund for population activities, the United Nations Fund for Population Activities (UNFPA) to assist countries requiring aid in all matters affecting population including demography and population stabilisation. The importance in the crowded modern world of limiting family size to foster the welfare of individual children needs hardly be emphasised. Through its activities UNFPA has undoubtedly contributed to the welfare of children already born by helping in appropriate cases to limit family size. In an analogous way, the UN Environment Programme (UNEP) was set up at the UN Conference on the Human Environment in Stockholm during 1972. Its activities, aimed at promoting a better environment and limiting environmental destruction by hasty or ill-planned development, can result in an improved environment for children.

In recent years the UN system has worked increasingly to promote cross-fertilisation of experience among developing countries. The 1978 Buenos Aires UN Conference on Technical Cooperation among Developing Countries (TCDC) helped to bring out the need for and value of this approach. TCDC can yield benefits for countries promoting child welfare through exchanges with other countries which have comparable experiences.

Role of UNICEF

Foremost, but not alone, among UN agencies and bodies concerned with helping children, UNICEF has played an important role in developing a "country" approach to the child. By following the country approach, UNICEF has been better able to assist developing countries to formulate national policies for children. It has also cooperated closely with other international agencies such as UNDP, WHO, UNESCO, FAO and ILO, in helping channel more resources into meeting the needs of children and youth. UNICEF encourages developing economies to build up national policies of child development, on the one hand, and induces the developed world and international agencies to increase aid allocated to child development programmes on the other.

Generally, UNICEF has seen its own role as a catalytic agent, giving particular attention to the instigation of programmes which should be capable later on of attracting assistance from external, or development from internal, sources. Therefore, the inclusion of pro-

jects for which it is providing assistance in the national development plan (that is, where a recipient country has such a plan) follows as a matter of course. This is a method of ensuring that sufficient local support is being given to the schemes in which UNICEF may be participating. Once the decision was taken that the Fund would provide assistance on a country basis, a structure for financial and technical commitments on a long-term basis was evolved, permitting projects of a long-term nature.

UNICEF has realised that, if assistance is to be geared to the national plan of a country, it will have to support combined community services. Of special importance is the training of workers to staff children's services. Moreover, except for limited opportunities for direct distribution, it is impossible to provide for children without providing direct and indirect benefits for their families. It has to be understood that the welfare of the young child depends primarily on the welfare of its mother, and throughout the welfare of children is closely interwoven with that of their families. UNICEF assistance programmes are based on an analysis of the needs of children in the country concerned within the context of the family and the community and hence are formulated on a cross-sectoral integrated pattern.

Thus, UNICEF has adopted an integrated, cross-sectoral approach in determining its activities. This has required it to call for technical assistance and cooperation from a number of agencies, leading, in turn, to a mobilisation of an increased volume of resources for child development in Asia, Africa, and Latin America. During the second Development Decade of the 1970s, UNICEF continued to press for comprehensive planning to meet the needs of children and youth undertaken within the framework of national planning.

Direct action for children in the 1980s

Assistance for efforts to meet basic needs, nutrition services and education development is likely to continue during the International Year of the Child and through the decade of the 1980s for those countries requiring help. In addition, it is proposed that consideration be given to assisting developing countries in the following ways:

1. In formulating National Child Development Plans as an integral part of the National Development Plan and woven into, as appropriate, sectoral plans for health, education, and welfare. This might be achieved by establishing a government planning post of adviser for child planning in the office of the President or the Minister of Planning. It would be necessary to have direct links to the chief sectoral

ministries concerned in Social Welfare, Education, Population and Health. On government request such posts could be financed from UNDP.

2. Within National Health Ministries establishing a post of Child Health Planner. Such a post could be concerned with public health planning or disease prevention at the school and village level, in conjunction with the Ministry of Education and local government organisation. Again, UNDP could finance such a post if a Government requested it to do so.
3. Assigning responsibility for public information work to disseminate information on child development during the year and to plan specific "events" to promote public understanding of this.
4. Special work is needed to reach the disabled child. In 1981 the UN will observe the Year of the Disabled. Between the Year of Child and 1981, action programmes can be developed to help disabled children and to spread the experience from successful efforts to other countries.
5. Action should be taken by Governments, Information Ministries, Non-Governmental Organisations and media organisers, to ensure full coverage for the Year of the Child and highlighting of the issues of development as they affect children—poverty, bad housing, poor water supply, inadequate environment. A poor environment is a function of poverty. Development efforts aimed at improving the urban environment through slum clearance, better city planning and construction, will surely help advance the objectives of the International Year of the Child.
6. Much is known by now of the success of town twinning and the extent to which cities, in Europe especially, have developed links with other countries. In like manner, it is proposed that schools establish a "twinning" relationship. This can be done and developed through personal contacts; those who lack contacts may wish to write to the Ministry of Education in the country where such an association is sought.

In the case of developed countries. it is urged that schools try to develop at least one "twin relationship" with a school in a developing country. Such links have been developed already by schools in England (such as Ampleforth College with schools in other parts of Europe), and by various schools in North America. In the public schools of West Haven (Connecticut) steady links with schools in Australia, Colombia, and the Philippines are nurtured and personal-

ised by the exchange of students with those countries for a whole school year.

The future

"The past is prologue." Most of the above mentioned activities of the UN system of organisations will necessarily continue, so long as the basic problems which they address persist.

A key problem will be that of resources. Resources for UN technical assistance and aid for children and for development generally depend on voluntary contributions by Governments. As of October 1978, the UN received about $850 million in pledges for 1979, for the the two major sources of funding of development activities involving children, i.e. UNICEF and UNDP. This amount is separate from the resources available to the World Bank Group for capital loans. The total resources of the UN system for direct grant assistance to developing countries may thus (with optimistic projections of rates of growth in voluntary pledges or contributions) reach $2 billion annually by the beginning of the Third Development Decade in 1981. Compared to the widely publicised $400 billion spent in 1977 on arms by all countries, the amount for international cooperation against poverty and for development is tiny, even if bilateral aid (totalling around $45 billion in 1977, according to OECD) is added to UN direct aid. Even these totals look thin once averaged out and considered at the national level of pressing needs in more than 130 developing countries.

A recent report by the UN Secretary General warned that 400 million children might suffer brain damage through malnutrition if rapid action were not taken to avert near famine conditions. Many children in the Third and Fourth World are afflicted with poor diets, endemic disease, bad environment, inadequate or non-existent education. The latent disharmony in resource endowment, relative levels of prosperity, and access to growth opportunities between the North and South of the earth, means that the United Nations as an organisation faces an awesome choice. Dramatising the issues as they affect our children—the children of the third millenium—may help the world to right its imbalance in a vital cooperative partnership to eradicate poverty by the year 2000.

SELECT BIBLIOGRAPHY

A Strategy for Basic Services, New York: UNICEF, 1976.

Basic Services for Children in Developing Countries, New York: UNICEF E/ICEF/L.1303, March 1974.

Child Malnutrition in the Developing Countries, New York: UNICEF, 1969.

Children and Adolescents in the Second Development Decade Priorities for Planning Action, New York: UN Economic and Social Council, April 1973. E/ICEF/627

Children and Adolescents in Slums and Shanty Towns in Developing Countries, New York: UNICEF E/ICEF/L. 1277, March 1971.

Children in Asia in 1977, Bangkok: UNICEF, 1977.

Children of the Developing Countries, Report by UNICEF, New York: UNICEF, 1963.

Children and Youth in National Development in Latin America, New York: UNICEF, 1965.

Children and Youth in National Planning and Development in Asia, New York: UNICEF, 1967.

Children, Youth, Women and Development Plans, The Lome Conference, *Assignment Children*, 20, October-December, 1970.

Community Action Family Nutrition Programmes, New Delhi: UNICEF, 1977.

Community Development in Primary Health Care, New York: UNICEF E/ICEF/L. 1355, 1977.

Djukanovic V. and Mach E.P., Alternative Approaches to Meeting Basic Health Needs, Geneva: WHO, 1975.

General Progress Report of the Executive Director, New York: UNICEF, 1970/1969/1967.

Integration of the Problems of Children and Youth in National Economic and Social Development Plans in Africa, Addis Ababa, New York: UNICEF, 1960.

Planning for Children and Youth within National Development Planning, Geneva: UNICEF and UNRISD, 1967.

Primary Health Care, Joint Report, Geneva and New York: WHO-UNICEF, 1978.

Reaching the Children of the Urban Poor, New York; UNICEF E/ICEF/L. 1372, April 1978.

Report of the Asian Council on Children and Youth in National Planning, Bangkok: UN Economic and Social Council, 1966.

Report on Children, New York: United Nations E 71 IV. 3, 1971.

Report of the Executive Board, New York: UNICEF, 1970.

Sicault, George (ed.), The Needs of Children, New York: UNICEF, 1963.

Singer, Hans (ed.), Children in the Strategy of Development, New York: UN, 1972.

Status and Prospects of Children and Youth in the ECAFE Regions, New Delhi: UN/ECAFE, 1966.

Stein, H (ed.), Planning for the Needs of Children in Developing Countries, New York: UNICEF, 1965.

Stein, Herman D. (ed.), Planning for the Needs of Children in Developing Countries, Report of the Round Table Conference, New York: UNICEF, 1965.

Strategy for Children, New York: UNICEF, 1967.

The Needs of Children, New York: UNICEF, 1963.

The Needs of Children and National Planning, Bellagio Conference, New York: UNICEF, 1964.

The Young Child: Approaches to Action in Developing Countries, New York: UNICEF E/ICEF/L. 1304, March 1974.

Trends in Industrial Relations

Bagaram Tulpule

This article presents an overview of industrial relations in India, with special emphasis on the period 1974-78. The analysis of industrial conflict shows that significantly more man-days were lost by lock-outs during the emergency than by strikes in the period immediately preceding it. Workers' participation in management, too, has not promoted industrial peace because of mutual mistrust between management and labour, and the changing pattern of labour-management conflict with the entry of new types of leaders and groups in trade unions and the use of organised violence. Neither has the government's indecision on Bonus nor the Bhoothalingam Report on incomes and prices policy allayed the misgivings of the workers. For the future, as the Industrial Relations Bill 1978 would suggest, there is likely to be increasing governmental intervention in the regulation of labour-management relations.

The course of industrial relations in recent years in India has not been linear and continuous. There were distinct turns and points of discontinuity in this course within the past four years. The first was the imposition of the emergency in June 1975; the other was the end of the emergency in early 1977. As of now, moreover, we may be at the crossroads again, for the Industrial Relations Bill 1978, introduced in Parliament by the Union Labour Minister, proposes far-reaching changes in the law and government administration concerned with industrial relations. In the context of this discontinuity, both past and impending, a relevant question which needs to be raised at the very outset in an exercise setting out to study the recent trends in industrial relations in India is: what is the time frame in which such trends can be meaningfully studied? With the system itself undergoing significant changes every eighteen months or two years, what appears to be a trend over a brief period of time may become doubtful after a fairly short time.

Mr. Bagaram Tulpule, a distinguished trade union leader, was Managing Director of Durgapur Steel Plant. He is the author of *Amidst Heat and Noise: Durgapur Recalled* (All India Management Association, 1977).

A practical way out of this difficulty may be to take a quick look at the developments in this field over a relatively longer time span spread over a period from some time prior to the imposition of the emergency upto the present, so as to get a broader perspective, and to focus more closely on the period after the emergency so that the current trends can be better understood and evaluated. Effort can also be made to look ahead and try to see what could be reasonably expected to happen in this field in the near future both on the projection of the current trends and under the likely impact of the changes in the system that government seems to contemplate. It would, thus, be useful to bring within our conspectus the period from early 1974 to the present, which would naturally divide itself into three periods of approximately a year and a half each. Of particular concern to us would be the last of these periods.

The Industrial Scene

The basic framework of industrial relations law was unchanged during this entire period, in fact during more than three decades past. What did change was the attitude of government and its administration in dealing with trade unions and their activities and movements during the period of the emergency. It was not only that all direct actions such as demonstrations and strikes by workers were frowned upon and suppressed; even normal organisational activities such as holding workers' meetings, issuing literature and so on were made difficult. Further, a new institutional set up in the form of Apex committees at the Centre and in the States was created on a tripartite basis to generally deal with labour matters in place of the earlier tripartite system of the Indian Labour Conference, the Standing Labour Committee, the State Labour Advisory Committees and the like. Only those trade union bodies which were committed to support the emergency were represented on these new Apex Committees on behalf of workers. Naturally, the voice of protest against government policies and actions was effectively excluded from these forums.

The immediate pre-emergency period, there is a widely held impression, was one of acute and country-wide industrial unrest in which strikes and conflict were rampant. It is also generally believed that the emergency effectively curbed all this strife and by enabling industries to work without 'labour trouble,' helped economic development. This impression was diligently propagated from official quarters during the emergency. It would be worth seeing how far this impression is supported by facts.

The extent of man-days lost due to industrial disputes is the principal yardstick we have of assessing industrial conflict. The rel-

evant figures for the period are given in the following table.

Period	No. of man-days lost due to industrial disputes
1974 (1st half)	304.07 lakhs
(2nd half)	98.56
1975 (1st half)	170.93
(2nd half)	48.07
1976 (1st half)	56.84
(2nd half)	71.12
1977 (1st half)	81.16
(2nd half)	132.82

These figures show quite clearly that there was, in fact, a high loss of work-days during the pre-emergency half year and that this loss came down quite steeply on the imposition of the emergency. However, it is necessary to look at facts a little more closely to find out what was really happening.

It is important to note that the figures of man-days lost came down very sharply in the second half of 1974 from what it was in the first half of that year. Further, out of the total loss of man-days in the first half of 1975, nearly 102 lakhs were in the jute industry alone. But for this single industry, in which the loss of man-days during the whole of the previous year was only about 55 lakhs, the figure of the time loss in the first half of 1975 would not have been much higher than the already lower figure for the previous half year. Thus, taking the industrial scene in the country as a whole, the extent of industrial conflict after reaching a peak in the first half of 1974, had come down in the next two half years for all industries except jute. The dispute in the jute industry, however, gave a highly distorted picture as if conflict was rampant and severe all over the country.

The conclusion that, in the country as a whole, industrial conflict was not extraordinarily widespread in early 1975 is also borne out by the figures of man-days lost during the whole of that year in most of the major industries in the country barring jute.

The figures of the working time lost during the three half years covered by the emergency suggest that the repressive measures taken during that period had only a limited and short-term impact on the industrial relations scene. After a sharp fall in the half year immediately following the emergency, the figure started rising again and by the second half of 1976, had come quite close to that in the second half of 1974. A significant difference in the picture, however, was that during the period of the emergency, not strikes but lock-outs began to take the greater toll of working time. In the very first half year of

Man-days Lost in 1975 by Industry.

Industry	No. of man-days lost in 1975 due to industrial disputes
Plantations	54,000
Mining	8,24,000
Sugar	2,06,000
Petroleum etc.	1,83,000
Chemicals	7,58,000
Steel	1,27,000
Engineering	19,62,000
Transport etc.	6,69,000
Banks, insurance	19,000
Cotton textiles	32,73,000

the emergency, the man-days lost due to lock-outs were almost twice as many as those lost due to strikes, while earlier lock-outs accounted for only between a third and a seventh of what strikes accounted for in loss of man-days in any given period.

The Union Labour Minister had repeatedly lamented all through the emergency that, while strikes had been effectively controlled, lock-outs by employers had become a major problem. There was also a sharp rise in the number of workers laid off or retrenched during the emergency to which also, the Union Labour Minister had repeatedly referred during the emergency. Clearly, the repression of trade union activities and workers' agitations was taken advantage of by employers to impose their own will on them.

Workers' participation in management

During the emergency, the idea of workers' participation in management, first mooted and tried out twenty years earlier, was resurrected by government as a part of the so-called 20 point programme. A fresh set of guidelines was issued to employers who were asked to implement the programme. There seemed to have been no examination of the causes why the earlier scheme of workers' participation in management had proved a non-starter, nor any prior discussion with the representative bodies of workers and employers before the new programme and guidelines were announced. Government administrative machinery kept up a steady pressure on employers to implement the programme and periodical progress reports were called for from them.

Employers as a whole continued to be sceptical about the whole idea. Only a few took any steps at all even to give an appearance of implementing the programme: fewer still had any serious intention of really implementing it. Numerous symposia and seminars were

organised at various levels and at different places to discuss the modalities of the implementation of the idea; but actual action was meagre. Claims were made from time to time that the public sector industries under the Central Government had introduced the scheme for workers' participation in industry and that works and shop committees had been set up in a large number of them. Such bodies, however, appeared to me more to satisfy the formal requirements of government guidelines than as a serious adoption of a new philosophy and style of management in the public sector which real workers' participation in management undoubtedly amounts to.

Predictably, on the end of the emergency, even such action albeit formal only, as was being shown during the emergency came to a stop and not much has been heard of workers' participation since then. Of course, the new Janata government set up a fresh tripartite committee to formulate yet one more scheme, but although almost a year and a half has elapsed since then, no specific action has been forthcoming so far.

The plain fact that both the earlier efforts in introducing workers' participation in management have underlined is that the employers in India view the idea without any enthusiasm. They are of course, no different than employers in most other countries in their attitude. Basically, the foundations of labour-management relations in India are simply not strong or stable enough to sustain an ambitious superstructure like workers' participation in management. There is too strong an undercurrent of mutual distrust and hostility between the two sides: win-lose attitudes are too much in evidence.

Apart from their basic distrust of trade union motives, employers seem to feel that (i) workers cannot understand and therefore make any contribution to the management function; (ii) workers are not prepared to accept the responsibility and accountability that are inseparable from a meaningful share in management; (iii) the process of management will be greatly weakened and slowed down if participative institutions are brought into the process and (iv) the participative bodies get turned into forums for pressing workers' demands.

Trade unions, on their part, have shown no greater enthusiasm for the idea than have employers, although at the policy level most of them have been demanding a share in management for workers for a long time. They have been even more distrustful of employers and seem to view all talk of participative management as a diversionary manoeuvre by employers. They have generally found employers not prepared to share any real authority or power with workers, only relatively trivial issues being brought up for discussion in the participative bodies. As a practical propostion, therefore, trade unions seem to view the idea as having little relevance to the present day

management philosophy, conditions and practices in industry.

Against this background of experience and attitudes, it is difficult to be optimistic about the outcome of any fresh initiative which government might come up with in the near future. Indeed, the very fact that initiative has had to come from government every time although the idea itself has been around for over two decades, is a measure of the lack of keenness among the parties themselves about doing anything in it on their own.

The general outlook of the government today, if the Industrial Relations Bill 1978 is any indication, is also not going to be particularly helpful in an essentially bipartite exercise like workers' participation in management. The whole approach behind the Bill is that the government should have a ubiquitous and central role to play in the regulation of labour management relations. This had also been the approach of the previous governments in the country for the past three decades and many serious students of industrial relations in India have come to the conclusion that this approach of the government has contributed to the weakness of bipartite processes and relations between the parties themselves.

Published statistics about industrial disputes in the post-emergency period, especially from January 1978 onwards are still incomplete and provisional. But such figures as are available show quite unmistakably that at least in the immediate post-emergency period, strikes and lock-outs became quite frequent again. This was perhaps unavoidable for, during the period of the emergency, the process of resolving the probelms that inevitably arise between labour and management in any going organisation, had almost come to a stop. Since workers could not resort to the usual types of protest actions, the pressure upon managements to identify and redress their grievances and bargain over their demands, had virtually disappeared during that period. As soon as the climate became more permissive, all the pent up pressures of the emergency period naturally came to the surface and industrial conflict took an upward turn.

Certain new dimensions of the post-emergency industrial strife, however, deserve to be noted. The most notable is the new-found militancy of the INTUC. From its very inception, INTUC had generally adopted an anti-strike stance not only as a policy but also on principle. Claiming to follow the teachings of Mahatma Gandhi, the founding fathers of INTUC had extolled the virtues of the method of arbitration and adjudication for resolving industrial disputes and had generally denounced strikes as anti-social and anti-national. Following this approach and policy, INTUC had consistently and actively opposed almost all strikes by workers for the three decades of its existence.

The change of government first in the centre and later in most of the states after the end of the emergency, however, brought about a *volte face* on the part of INTUC. It now suddenly began to show great concern for the inadequacy of the administrative and quasi-judicial apparatus set up since independence to intervene and resolve or adjudicate labour-management disputes. It suddenly dawned on INTUC that, without resort to work stoppages, the interests of working people cannot be effectively protected and furthered. When full facts and figures for industrial disputes in the immediate post-emergency period become available, it may well be found that INTUC has called more strikes during the 18 months after March 1977 than it did perhaps in its entire life till then. The political genesis of this unprecedented militancy of INTUC is too obvious to need any elaboration here.

There was a notable change in the pattern of labour-management conflict in some parts of the country. Bombay and Maharashtra, for instance, had a reputation for reasonably well-ordered interaction between the two sides and a certain stability of industrial relations. Not that major strikes did not take place there But even when they did, there was a certain order and method about them, fairly good organisational backing behind them and they were usually conducted with a degree of discipline and peace. Some slide back from this relatively well-ordered scene had no doubt commenced even some time before the imposition of the emergency.

Some upstart individuals and groups not owing any particular allegiance to any national organisation or any political or labour ideology, had entered the trade union field and largely by strong-arm methods challenged the established organisations of workers. By the use of organised violence, some of these individuals and groups succeeded in building up their respective areas of command and terrorised management into recognising them and making significant concessions to them. They managed to maintain a stance of political friendship with, if not direct membership of, the ruling party in the State which, on that account, showed them much indulgence. After the end of the emergency, these individuals and groups became even more aggressive and uncontrolled. The result was a series of prolonged and bitter conflicts in several of the largest and most prosperous industrial establishments in and around Bombay and Pune. The newly developed Thana-Belapur industrial belt just north of Bombay became an area of particularly severe unrest.

Violence came to be viewed as an almost accepted part of these conflicts. Most of the established trade union organisations and leadership, however, looked upon these methods as wrong and inconsistent with the long-term interests and objectives of the working

people, the short-term gains made by the upstart groups and individuals notwithstanding. Consequently, the established leadership found itself at some disadvantage, and employers as a whole found an opportunity to run down the trade union movement as rowdy, violent and irresponsible.

The methods of the new leaders, however, could not, in the very nature of things, succeed for long. Some employers soon realised that they had to make a stand against them no matter what the cost involved was. Fairly soon, workers began to see the difficulties which the adventurist methods of the new leaders landed them in, and the disturbed conditions in many establishments began to settle down. From about May, 1978, industrial strife in this area became distinctly less severe and widespread.

In the country as a whole too, judging by the reports that are generally available, labour-management relations seem to be settling down after the severe post-emergency unrest. That is also what is claimed by the spokesmen of the government. This seems plausible enough, although definitive statistical support can come only some time later. The problems accumulated during the emergency period have presumably been worked out through strife as also through the normal restoration of the problem-solving processes after the emergency.

A factor favourable to the stabilisation of the labour climate within the country is the relative stability of prices that has been maintained over much of the recent period. Past experience is that a phase of rapidly rising prices is also one in which industrial conflict tends to aggravate and, conversely, when prices are stable or tend to ease, disputes also tend to be within manageable dimensions. This again is entirely understandable.

Bonus

On the other hand, there are several issues still unresolved and these continue to be potential causes of industrial conflict. The indecision and prevariation of government on a sensitive issue like annual bonus is a glaring example. It should have been a simple matter for government to restore the pre-emergency position on bonus by repealing all the amendments made to the Act during the emergency. That would have also been in keeping with the election promises of the Janata Party. Government, however, has chosen to leave the issue in a state of uncertainty and for both of the previous two years, last minute ordinances promulgated by government left at least some of the mischief done during the emergency, unredressed.

The declaration of the government that it was searching for a more satisfactory formula for bonus lacks credibility, for no serious

dialogue has been opened by it with the representative bodies of workers and employers for the purpose. Besides, for the past three decades a number of high power bodies have repeatedly examined the question of bonus from all angles. The present—or rather the pre-emergency—Bonus Act represented the fruit of this long series of studies and both workers and employers had come to look upon it as the best practical arrangement at least for the present. To keep that formula in suspended animation for a long time, only to be temporarily revived on a year's reprieve at a time on the ground that government wants a better formula, makes no practical sense. Worse still, it has generated grave misgivings in the mind of workers about the good faith itself of the government.

Incomes and prices policy

Another sticky situation in which government has landed itself as well as industry and labour is its repeated but wholly indecisive talk of an incomes and prices policy. The Bhoothalingam study group whose deliberations were an alibi for government not permitting any wage negotiations to proceed in public sector industries for over a year, was itself set up without any prior consultation with trade unions and its personnel too had no representative status.

The vast size of the unorganised sector of our economy, the total incapacity of government to impose any semblance of effective control and discipline even on the organised sector, the flourishing 'parallel economy' running on black money, the incomes of the professional groups still remaining outside the tax net: all these are almost unsurmountable obstacles in the way of formulating any meaningful and equitable prices and incomes policy in our country. Even if a policy could be formulated, government lacks the capability of enforcing it against several groups in the society: the business community, the professionals, the rich farmers and so on. In such a situation, a prices and incomes policy, it is rightly feared by workers, will only result in restraining the incomes of the fixed income sector, the predominant proportion of which is still well below the need-based minimum wage level. The fear of a wage freeze coming as a part of the so-called prices and incomes policy, is thus, not altogether imaginary.

The actual recommendations of theBhoothalingam study group are also unmistakably focused on the fixed income groups' incomes. What it has recommended to enhance the incomes of the weakest sections of the society as also for keeping prices under control is at best only tentative and general. That part of its recommendations is only indicative and the modalities of their implementation are by no means clear. Regarding non-wage incomes of the more affluent sec-

tions of society, the Study Group has hardly been able to say anything worthwhile at all.

While recognising that some of its ideas relating to wages, such as that of a National Minimum Wage, are certainly not contrary to what trade unions themselves have been asking for a long time, and also that in these ideas the group has earnestly tried to combine realism with the social goal of raising the standards of the weaker sections, the overall impact of the recommendations would be adverse to working people. The Study Group has, of course, asserted that it does not propose a wage-freeze nor a uniformity in wages in different sectors of industry or of the economy. But its recommendation for a uniform rate of dearness allowance across the board per point rise in the consumer price index would, if enforced, have the result of cutting down the present rates in several industries.

The government has declared that it is not committed to accept the Study Group's recommendations and that it will consult the organisations of workers and employers before taking any decisions about any incomes-prices policy. The actions and declarations of the government for the past year and more, however, have created a strong impression among industrial workers that economic thinking in government is not favourable to workers. There are also reports that in public sector industry, the processes of wage-bargaining are still being thwarted due to government's reservations enforced through the Bureau of Public Enterprises.

The issue of bonus for railwaymen and various other sectors of government employment is also an extremely sensitive and potentially explosive one. The contradiction in the government's position on this issue is patent and it is difficult to see how it is going to avoid paying bonus to these employees much longer without inviting acute unrest and, almost certainly, conflict in these sectors.

Prospects of industrial peace

Government seems to have no new ideas or strategy in the field of industrial relations as a whole. This is unmistakably clear from the Industrial Relations Bill 1978, sponsored by it. It not only seeks to continue the heavy reliance on government intervention and compulsory adjudication for resolving disputes; but also to carry that philosophy further and make the control of government in this area total. Such an approach has not proved very fruitful in the past and is not likely to do so in future.

Nor do trade unions or employers seem to have any fresh approach to the challenge of regulating their mutual relations. The hope that the trauma of the emergency and the virtual suppression during that period of the unions not committed to government, would

be a strong impetus for a consolidation and integration of at least that section of the trade union movement, and that thereby at least some of the multiplicity and rivalries among unions would be mitigated, has unfortunately not materialised. The rise of several upstarts within the movement, the continued lack of any simple and objective framework for recognition of the bargaining agent and such other factors indicate that the collective bargaining scene will remain as disordered as it has been in the past. Although the unions are themselves the worst sufferers, along with workers, of this chaotic state of affairs and although the proposals in the Industrial Relations Bill 1978, will not offer any real solution to this problem, trade union leadership does not seem to be inclined to make any efforts on its own to find out any broadly acceptable solution to it.

Employers, on their part, seem to be content with blaming what they view as the irresponsibility, the rivalries, the political involvements and personal ambitions of trade union leaders, their lack of commitment to the goal of economic development of the country, the wrong policies of government and everything else except themselves and their own attitudes, for the unsatisfactory state of labour-management relations.

Against this background, one cannot be very optimistic about the prospects of industrial peace in the country in the near future. Nor need one be unduly pessimistic either. Despite all the adverse factors in the situation, an overview of the major trends in the field of industrial relations in the country over the past decade or more shows that from out of the widespread conflict, a certain process of maturity in the attitudes and conduct of the parties has also been going on, albeit very slowly. There have been several industry-wide collective bargaining agreements in major industries in the country during this period. Even at the unit level, these trends are discernible although not as widely as one would like. One can reasonably expect this process to continue under the pressure of necessity and thereby, conflict can be expected to be kept within manageable dimensions.

But this will amount to nothing better than somehow blundering along, a hit or miss interaction with a not insignificant extent of actual conflict arising in the process. The search for a rational, purposeful and equitable system for regulating labour-management relations and for minimising conflict, has to continue. The leaders of trade unions and industry need to recognise that this challenge is primarily for them to face and overcome.

Wages, Incomes and Prices: The Bhoothalingam Report

A.J. Fonseca

The report of the Study Group, set up by the Government to formulate an integrated wages, incomes and prices policy, has aroused fierce controversy. Apart from its narrow conception of an incomes policy as an instrument for reducing inflation, the more severely criticised prescriptions of the report are the changes it proposes in the payment of Dearness Allowance and Bonus, a national minimum wage, limits on wage and income disparities and restraints on dividends and high incomes. There is the difficulty, acknowledged in the report, of evolving an incomes policy when over 60 per cent of the working population is self-employed. It is also not clear how these recommendations can be effective in the absence of radical changes in ownership patterns and the structure of management-labour cooperation in raising wages and incomes above subsistence levels.

When treating of this highly controversial report on Wages, Incomes and Prices, it is essential to discuss its recommendations and their supportive arguments within the framework of the terms of reference set the Study Group by the Government of India. Embodied in these guidelines is the clearly envisaged desire of the Government for an *integrated* Wages, Incomes and Prices policy. The reason for this demand were the following two complex issues:

(a) Serious distortions in the structure of pay, D.A. and other compensatory allowances of employees in the public and private sector. These distortions are largely the result of an *ad hoc* approach followed in the past to the problem of periodical revision of emoluments in public enterprises and in organised private industry.

Dr. A.J. Fonseca, a labour economist, is Visiting Consultant to the Indian Social Institute, New Delhi. He is the author of several books, including *Wage Issues in a Developing Economy* (Oxford, 1975).

(b) The desperately low incomes of the vast majority of the people in the agricultural sector who are mainly self-employed. Their incomes are also liable to serious fluctuations.

The mention of these two distinct issues, one of a largely urban the other of a largely rural dimension, is an indirect acknowledgement of the dual nature of the economy, and it is within this matrix of a massive and dominant agrarian base side by side with a small but expanding industrial sector that the Study Group was expected to formulate a comprehensive and integrated wages, incomes and prices policy. In other words, while deploring the presently existing *ad hoc* approach to wage determination and the settlement of incomes, the sponsors of the terms of reference wanted a well reasoned integrated organic framework within which future wages, incomes and prices could be determined with a clear cut economic and egalitarian perspective in view.

Of course besides this main objective, the Study Group was also requested to give special attention to the following issues in its draft proposals:

(a) to determine the minimum wage and state the norms with reference to which the minimum wage should be determined. Should there be a single minimum wage or a variety of minimum wages?

(b) to suggest the relevant criteria for determining the differentials between the minimum and the maximum wage. What should be the ratio between the two levels? Should there be only a single ratio prevailing between minimum and maximum wages in all sectors?

(c) to lay down the criteria for determining maximum income and the relationship between maximum income and maximum wage?

(d) to explicitate the linkage between wages, incomes and prices, and in consequence to review the existing arrangements for regulating D.A. in the private and public sectors.

(e) to draft the fiscal, economic and other policies to achieve these objectives and to indicate the changes in the existing legislation in view of the proposed policy.

This was certainly a tall order by any standard and the Study Group was given only six months in which to complete the job. Despite the interesting statistical data provided in the report, and the soundness of some of its recommendations, one cannot afford to gloss over some of its fundamental lacunae.

Theoretical framework

Nowhere in the report is there any mention of the basic theoretical approach that the Study Group assumed as a frame of reference for drafting its proposals. As noted above, the framers of the terms of reference had deplored the *ad hoc* approach in the determination of minimum wages, wage differentials, high and low incomes, marginal incomes and prices. In the report one fails to find any reference to or discussion on the deeper implications underlying this situation, or an attempt at a theoretical explanation of such skewed developments. For instance, in his essay on "Economic Development with Unlimited Supplies of Labour," W.A. Lewis,[1] the Jamaican economist had restated the classical thesis that development is the result of capital accumulation and the speed of its growth determines the rate of development. Capital accumulation takes place in the modernised urban sector and when there is an expansion of employment, the main source from which workers come as economic development proceeds is subsistence agriculture. As a consequence the wage level tends to approximate the level of worker subsistence and, especially for the rural worker, wages are determined by the average product per man in subsistence agriculture. These earnings set the floor for wages in the industrial sector. In a country that is over-populated relatively to its natural resources, the marginal productivity of labour is negligible, zero or even negative. To raise the wage and income level such surplus must be absorbed. The only way out of the dilemma is rapid industrialisation. This type of theory has largely determined the strategies of our Plans. But our industrial growth has been concentrated on basic infrastructure that is highly capital intensive, and this has not solved our employment problem or absorbed surplus labour.

A partial rectification of Lewis' thesis was introduced by the American economists, Fei and Ranis, who compared Japanese and Indian development performance,[2] and who suggested that the spill-over of labour from the rural into urban industry, should take place only after agrarian wages and incomes from agriculture had started rising above subsistence. The Japanese model of labour intensive agricultural production was proposed and strongly recommended as a

1. See W. Arthur Lewis, "Economic Development with Unlimited Supplies of Labour," in A.N. Agarwala and S.P. Singh (eds.), *The Economics of Underdevelopment* (Bombay: Oxford University Press, 1958), p. 400 ff.

2. See J.C.H. Fei and G. Ranis, *Development of the Labour Surplus Economy: Theory and Policy* (Illinois: Homewood, Richard D. Irwin, 1964). For a brief discussion of their theory and that of Lewis in relation to the wage situation in India, see. A.J. Fonseca, *Wage Issues in a Developing Economy* (Delhi: Oxford University Press, 1975), p.3 ff.

better approach to the absorption of the agrarian labour surplus.

In India, already in 195c, the objective of the Second Five Year Plan had been bitterly criticised by the Bombay Economists, Professors Vakil and Brahmananda, for its emphasis on heavy industry to the neglect of augmenting the wage goods for industrial consumption that would have provided both employment and consumption commodities for the large masses of the population.[3] Despite such criticism, the subsequent Plans did not alter the priority, though the ratio of output to the capital input was steadily diminishing and the percentage of the numbers below the poverty line was not being reduced. In fact, inequalities in incomes have been heightened. The Fifth Plan does speak of eliminating absolute poverty as one of its main aims, but have the right strategies been selected to achieve this objective? We still lack a theoretical model for the effective elimination of absolute poverty in our country, and the Study Group has done precious little to formulate even the semblance of such a model though it has dwelt at some length on the persistence of absolute poverty, even with higher growth rates.

Incomes policy

According to the Study Group, "Incomes policy, as generally understood in the Western countries in which they have been tried out or practised in varying degrees, has usually concentrated on the short-term regulation of income increases as one of the main methods of controlling inflation. As wages constitute the bulk of incomes, incomes policy in these countries has tended to be equated, in the ordinary man's view, with restraint of wage increases in order to prevent inflation."[4] Contrast this rather generalised concept of incomes policy with what J. Corina and A.J. Meyrick have judged to be the peculiar characteristics of incomes policy from English experience. In their view "Incomes policy, intertwined with prices and productivity policy, is neither a neat analytical system nor an end in itself. Since the system however is firmly established as a continuous British experiment, the task is to evolve criteria for evaluating the direct and indirect effects. Difficulties arise because incomes policy is a weak

3. See P.R. Brahmananda, "The Future of Planning and Planning of Future," in C.N. Vakil, *Poverty, Planning and Inflation* (Delhi: Allied Publishers, 1978), p. 108 ff. Brahmananda maintains that high growth rates in certain sectors can go on endlessly with low growth rates in other sectors. Real capital stock in and for agriculture which produces dominant wage goods has just kept pace with the growth of population. This accounts for the constancy of the percentage of the population below the poverty level for the last two and a half decades.

4. *Report of the Study Group on Wages, Incomes and Prices* (Government of India, Ministry of Finance), p. 17.

'directive' instrument to the extent that it offers a series of benefit-cost probabilities rather than an array of defined or forecastable outcomes. It offers, for example, only the short run *possibility* of raising real incomes in full employment conditions without undue economic disturbance or resource waste; and, in the longer term, only the *opportunity* for introducing more order, stability and rationality into income distribution and for applying more socially acceptable standards to it. So incomes policy can no longer be viewed as a narrow instrument of wage and salary stabilisation—with problems, confined to establishing the 'boundary conditions' and the implication of a focused wage and salary minimand. It has become in Britain a far wider evolving system—with ramifications into non-employment incomes, prices policy, productivity, efficiency, manpower policy, etc —and this system has become a necessary condition for the *existence* of any wage policy directed towards income stability."[5]

Obviously the Indian situation is different from that of the British. But even for India the purpose of an incomes policy should not be merely to control inflation but rather to guide an 'evolving,' system that is inherently linked by institutional and market relationships that can to some extent be recognised and channelled to the benefit of the entire community, and within which wages, incomes and prices will have an intrinsic connection. It is precisely a comparatively coherent system of this kind with its value implications clearly underlined that the Study Group should have produced. It is true that the group has examined the relationships between wages in industry and in agriculture, compared wage and salary incomes, maximum wages, high and low incomes, and produced a number of useful statistical tables as evidence to support and justify their conclusions, but what is crucially missing is the attempt to outline a unified system where *ad hoc* remedies will no longer be applied and certain fundamental principles will be utilised in the determination and control of incomes—principles based on justice and equity. Was this objective too far beyond the capacity of the members of the Study Group? Did they give it any thought at all? Should they not have done so, given the growing importance of opposing tendencies within the country?

The Indian Constitution has guaranteed fundamental human rights, has chosen for its objectives justice, liberty and equality, has selected a democratic form of government for the achievement of these objectives and therefore the establishment of an economic

5. J. Corina and A.J. Meyrick, *The Performance of Incomes and Prices Policy in the United Kingdom: 1958-68* (Geneva: International Institute of Labour Studies) as quoted in A.J. Fonseca, *Wage Determination and Organised Labour in India* (Bombay: Oxford University Press, 1964), p. 127.

system in which such rights will be respected, justice and equity secured, and the exercise of freedom within defined boundaries allowed to function without violence to the common good. In a tightly controlled system where prices are determined by authoritarian fiat, resources allocated from above, targets of production already fixed, wages and salaries rigorously determined by a centrally imposing authority, an incomes policy could be more easily handled. However even in those countries where such policies have been tried, inflationary tendencies can be acute, resources are apt to be misallocated and in the absence of adequate worker responsibility and participation in decision making, specified targets are not reached, and deterioration in production takes place. It is well known that though equality is the right of everyone, some are more equal than others.

There was no need for the Study Group to deal explicitly with this controversial issue but a reference to such possible solutions should have been within the purview of the first chapter of the report. Instead the Study Group chose to look at the matter from a purely distribution angle, and refrained from discussing the generation, distribution and use of all types of incomes. Although it tends to narrow the purpose of an incomes policy when it says "that incomes policy in India has real relevance only in the sense of a consciously integrated set of economic policies designed to increase national income through appropriate economic development and to bring about a more equitable distribution of the national income but in ways consistent with continued growth," it also points out that "there is a large body of opinion which holds that the ways through which economic growth has been achieved—insufficient as it might be in relation to needs—have failed to bring about better distribution. Equally, there is concern that other policies with the main accent on more egalitarian distribution, might come in the way of growth itself. In societies which have already attained a certain measure of affluence, redistributive policies can be envisaged with less uneasiness, but where, as in India, the size of the national cake is very small, the accent has to be evenly balanced between growth and better distribution." The Group is therefore of the opinion that "the cake has to become larger if all are to get a better slice."[6]

This rather prodigal treatment of so basic an issue by the Study Group is to be regretted. It is deliberately forgetful of those citizens—who are deeply conscious of the fact that after thirty years of planned development, nearly 40 per cent of Indians are compelled to subsist below the poverty line. For this group, the solution of merely increasing the size of the cake is meaningless. The distribution

6. Report of the Study Group, *op. cit.*, p. 18.

problem will never be solved unless there is a radical change in the patterns of ownership, in structural transformations, in confrontation of power with power. How is it that the Study Group was so blissfully unaware of this new trend and ones similar to this that are overtaking not only India but other developing nations in the world.[7] These tendencies and alternatives may be impracticable for they seem to forget in-built economic limitations, may arouse physical violence and prove a set-back to productivity, but they should be taken into consideration in order to work out a meaningful and attractive incomes policy that will provide the basic democratic framework towards an integrated system of factor payments or rewards.

Indeed an incomes policy that will quickly achieve even a relatively egalitarian society is more urgent in a developing country than in a developed one, precisely because of its probable contribution to a rapid increase of production. It is not a simple question of distributing larger slices of the economic cake to every citizen, but rather of enlarging his capacities to increase the size of the cake and introducing new structures for a more equitable distribution.

One great advantage however of setting up the Study Group is the useful data now made available on certain aspects of the Indian economy that are not easy to obtain through official government publications in the first place. Once again there is confirmation of the existence of a solid core of 'absolute' poverty, viz 40 to 60 per cent of the Indian population who live below the poverty line. Even below the line, there exists a descending scale of greater and greater poverty, designated as poverty, destitution and severe destitution. The severe destitutes are those households which had incurred per capita expenditure per month of Rs 28 or less in the rural areas and Rs 34 or less in the urban areas. The destitutes were those families for whom the corresponding figures per month were Rs 34 for the rural areas and Rs 43 for urban areas. The corresponding figures for the poor households were Rs 43 and 55 respectively for rural and urban areas. Twenty-nine per cent of the persons below the poverty line were severe destitutes, and the severe destitutes taken together formed 86 per cent of those below the poverty line. If these figures are even approximately correct, one may well seek the reason for the persistence of such acute poverty and inequality after 30 years of economic planning and growth.

National minimum

Without however dwelling on the reasons for the persistence of this deplorable situation, the Study Group preferred to prescribe the

7. *Ibid.* p. 18

minimum wage as a solution. The National Commission on Labour had stated "that a national minimum wage in the sense of a uniform minimum monetary remuneration for the country as a whole is neither feasible nor desirable."[8] The Study Group however has recommended a national minimum.

While expressing its reservations in regard to linking national minimum with the present annual per capita of Rs 1,049 or about Rs 87 a month, it has taken other indices into consideration, viz. the per capita national income after applying the participation rate, average national income per consumption unit, and the per capita rural consumption expenditure. These estimates yield a range of figures between Rs 85 and Rs 181 per month. And therefore the group has suggested that the initial target of the national minimum should be Rs 50 a month (at 1978 prices). The main purpose in choosing a rather low figure is neither to jeopardise employment nor to keep the minimum too low. Minimum wages are to be fixed at Rs 4 a day of eight hours of unskilled work, inclusive of any part payment in kind, where customary. Where monthly rates for employment are determined, they must never be allowed to fall below Rs 100 per month. Thus this figure becomes as it were the floor or the minimum subsistence income for the entire country to achieve. Rs 100 is a small sum, but it would be a great boon to those living below the poverty line if they could be guaranteed such an income.[9]

Distortions

In regard to distortions in the structure of pay, the D.A. and other compensatory allowances, the Study Group is amply justified in claiming that wages form only a small part of incomes in this country. The most dominant feature of the Indian economy is the great preponderance of the self-employed and under-employed. As a matter of fact only in the organised sector that numbers 25 million people can wages and salaries be made subject to conscious determination. For the rest of the economy income policies alone will guide and influence a more equitable distribution of the increase in the wealth of the country. But the processes of change in a large segment of the self-employed and another large segment of the under-employed, the Study Group believes, have in course of time led to the disparities and the distortions in incomes which in their turn have produced various types of pressures within the economy ensuring and widening the differences. Once again basing itself on its narrow understanding of the purpose of an incomes policy, the Study Group rejects the idea that wage

8. *Report of the National Commission on Labour* (Government of India, Ministry of Labour, 1969), p. 233.

9. *Report of the Study Group, op. cit.* pp. 33-34.

restraint should be used as a measure to control inflation. It feels that in India 'incomes policy should not become synonymous with wage restraint.'[10]

Certainly there is a clear-cut case for raising the wages of the lowest group of wage earners especially in the rural sector, and in the unorganised open labour market in the urban sector but, at the same time, some control of wages in the organised sector so as to prevent a widening of the wage levels cannot be dismissed too summarily. Obviously enterprises enjoying high levels of prosperity and where labour is well organised, wages and other compensatory allowances are bound to rise under bargaining pressures, but should such tendencies be allowed free rein without some thought of the future when wages might become a real source of inflation and it will be too late to make a turn-about? Much of the unemployment and stagnation in the developed countries is due to high wages. Labour has become so costly that these countries can no longer compete in the international market, and the enterprises prefer to take advantage of cheap labour in third world countries for expanding their production. Should one consider this a subtle form of exploitation? Not necessarily, since it is a process in the evolution of a new international division of labour.

Rural sector

As for the rural sector where half the population is below the poverty line, the minimum household income has greater relevance than the national minimum wage. Accordingly, the Study Group has recommended that the desirable rural household income should be such as to enable the bottom 30 per cent to come up roughly to the level of the next higher decile group. For planning purposes, a minimum of Rs 1,800 should be adopted. A target of this kind would require a very strenuous effort indeed when it is considered that the average disposable income for the bottom four deciles is estimated at Rs 740, Rs 1.233. Rs 1,522, and Rs 1,838 respectively.[11] It must be built up on the policy measures enunciated in the Draft Fifth Five Year Plan 1978-83, which envisages a sizable shift of resources towards the rural areas in terms of higher outlays for agriculture and allied activities. A massive minimum needs programme is also within the planning strategy as well as the creation of 23 million additional jobs within the rural sector. The Study Group rightly insists that the main recipients of this increased investment, both physical and human, should be the seriously destitute, the destitute and the poor, those without land and those with small bits of land. Opportunities for

10. *Ibid.* p. 18.
11. *Ibid* p. 38.

becoming skilled and the provision of work for such unemployed and under-employed persons must be the primal objective of the scheme.

As for the marginal farmers, an improvement in their productivity is a basic essential in raising their incomes. But such as increase in production must be supplemented by special marketing and procurement arrangements. No less important are guaranteed prices so as to to induce them to produce the crops that are in demand and which at the same time are labour-intensive and of high value. For the limited number of specific individuals like the adult members of the landless families and adult family members with less than a minimum amount of land, guaranteed employment programmes will have to be implemented. The daily wage for the unskilled worker however may not be lower than the national minimum, and the work provided should be continuous to last at least for a week. But those employed should be encouraged to get on to some other work either provided by their own inherent or acquired skills or in demand by the neighbourhood.

There is nothing very novel or striking in these suggestions, but they should have been spelt out in the context of a national incomes policy. Without explicitly saying so, the Group has sought to institute a policy of raising real incomes and creating greater employment opportunities, within the rural sector. This will undoubtedly bring about a better balance between the share of agriculture and industry in the national net product and prevent the out-migration to the towns that complicates the efforts at relieving poverty and providing sufficient employment for the urban unemployed. In the long run, there would thus be more order, stability and rationality introduced into the distribution of incomes and the egalitarian objectives of our Constitution.

In prescribing these directives for raising the incomes of the rural poor, why did the Study Group adopt such a neutral attitude towards the social and structural elements of the problem? What about land reform, what about the money-lenders who provide and control the sources of credit to the farmer, what about the middleman and the rural merchant who purchase the farmer's produce. Reference has been made to these factors in a general way under the broad category of improving marketing and procurement arrangements. But they could have been spelt out more vividly and vigorously in more concrete terms.

Linked with the increase of production by small farmers is the necessity of setting up a system of prices that will induce the farmer to expand his production. Concrete suggestions of guaranteed prices for specific commodities, and the entry in passbooks of farmers of acreage devoted to such crops with fluctuations in yield may secure

the small farmers from competition and exploitation by bigger farmers and ensure them a steady income. Obviously a great effort in non-formal education should be undertaken to render the scheme viable.

High incomes and top salaries

It is interesting to note that in India the self-employed form nearly 62 per cent of the working population. Out of the Rs 58.485 crores of net domestic product, Rs 31,519 crores is received by this group as income from a variety of sources. A distinction is made by the Study Group between high incomes and conspicuous consumption. The former is to be welcomed in so far as it reflects increased production within the country, but conspicuous consumption cannot be tolerated for the obvious reason that a poor country cannot afford to squander its precious resources in wasteful expenditure, especially where there are millions who have to go without a square meal a day.

Consequently, while the Study Group has suggested no freeze on wages, it has recommended certain restraints on dividends and high incomes. In practice, the control of high incomes is rather tricky, because there are so many loopholes by which these incomes escape detection. It is well known that conspicuous consumption indicates the existence of vast sums of black money. As the Study Group remarks: "the only method of trying to enforce a ceiling on incomes is by 100 per cent personal income tax on the excess over the ceiling. However, recent experience has shown that this does not work. Agricultural incomes continue to be totally exempt from all personal taxation; many other incomes, though legally subject to tax, are not brought within the tax net. Moreover the threat of a limit on incomes will be a disincentive to work and enterprise."[12] Hence the Group has suggested a ceiling not on incomes, but on the two main purposes for which incomes are sought, viz. consumption and private investment. They suggest a penalty over a certain limit of total income from all sources including agriculture. One could opt out of paying the penalty by depositing the whole of the excess amount with the government into a special account, which will bear an interest rate determined by the government. Government will use these funds, but they remain the property of the individual and he can withdraw them for specific purposes, provided he pays a tax on them. Is this a workable alternative? One cannot condemn it out of hand without giving it a fair trial. It means building up one more institution of control over personal incomes to be added to the many others that already exist, whose functioning is by no means efficient.

Far more tangible recommendations have been made by the

12. *Ibid.* p. 5.

Study Group for the control of incomes arising out of salaries earned in the private, public and government sectors. Once again some statistical comparisons have been provided which are highly interesting. Out of a total employment of 24 83 million in the organised sector, the private sector employees are only 9.83 million. It is also emphasised that in terms of investment, turnover, profits or employment, the top few public sector enterprises do not compare unfavourably with the largest companies in the private sector. The question may therefore be raised as to why chief executives in the private sector should draw higher salaries than the Rs 4,000 paid in the Indian Oil Corporation, Bharat Heavy Electricals, and Hindustan Steel, which rank among the most efficient companies in the public and private sectors.

Since the ratio between the post-tax income of the lowest and the highest employee in government service is around 1:9, the Study Group considers this ratio too low, and even when perquisites are taken into consideration. For some time now though inflation has reduced the real value of these top salaries in government service, no increases have been prescribed. The Study Group therefore recommends the setting up of a National Commission to settle the amount of increase so as to attract candidates of the requisite calibre for those posts. It favours a ratio of 1:10 between the lowest and highest salaries.

In the private sector the differentials are much wider, round 1:16, which the Study Group finds excessive.[13] Despite the reasons of mobility and scarcity of managerial talent and the insecurity of employment in the private sector, there does not seem to be justification for these high salary levels after tax, especially if perks are included. For all new contracts during the next five years the Study Group recommends Rs 6,000 a month plus an additional 25 per cent of basic pay to cover perquisites such as car allowance, house rent, etc. Nothing is said about the many other ways like expense account and similar devices by which perks can be increased. All the same it may be worth while fixing some standard by which establishments in the public and private sectors know how far they should go in revising salary scales of their top managers and what to offer them in contracts already made and likely to be revised.

The trade union member of the Study Group had suggested more stringent measures to contain top incomes within a specified ceiling, but the problem is always how to implement such measures. Even he admits that the existing company law and estate duties have not brought about the desired effect. It seems hardly worth while

13. *Ibid.* p. 116. In this appendix, the Study Group has appended a table of the emoluments of Topmost Executives in some sectors of the economy. It brings out the disparities between the sectors.

prescribing further drastic measures unless the functioning of the prevailing fiscal system is rendered more effective.

Wages in the organised sector

Though the Study Group expresses its dismay over the confusion in the existing wage structure, so badly distorted by disparities, anomalies, and irrationalities—wage differentials and wage levels that have come to be customary and regarded as 'rights'—they have made some basically sound suggestions for framing a more orderly wage structure. On the other hand, they confess to not having found any reasonable method of determining what should be the absolute level of wages for each category of workers and the right differentials between one category of workers and another.

As the Study Group points out, all differentials are unjustified. Such differences are often demanded by the nature of the work, the requirements of the industry, the technical methods of production that call for different attitudes and skills. Similarly a capital intensive industry would be able to pay a higher wage to its workers than a labour intensive one, if productivity per capita were to be the measure for wage adjustments. Though the Study Group has not referred to them, the Wage Boards and the Industrial Tribunals have already produced a stream of useful suggestions and decisions on wage standard disation and the determination of minimum wages and wage differentials. So what the Study Group has finally recommended is not something very original. Only an attempt has been made to apply the norms to the organised industrial sector throughout the country.

Certain obvious cases of wage disparities between one industry and another have been pointed out by the Study Group. A sweeper in a steel plant receives Rs 465 a month, while a sweeper in a steel using factory draws Rs 350 a month, and a sweeper employed by the local municipality is paid only Rs 150 a month. Yet all three of them are doing the same kind of job calling for the same low level of skill. A similar bewildering variety of wage levels exists at which different employees in the public and the private sector are remunerated for unskilled work of more or less the same kind. Another example at higher levels of skills and jobs appears when some Class IV employees are paid more than school teachers, and junior bank officers receive a higher remuneration than the Chief Medical Officer of a district.[14]

In view of these glaring anomalies, the Study Group concludes that some efforts should be made to build up a more orderly wage system which will prescribe reasonable wage differentials, and narrow wage disparities in respect of jobs requiring similar skills, introduce

14. *Ibid.* pp. 55-57.

a mechanism for future adjustments of wages to changes in the economic situation such as fluctuations in the value of money, changes in productivity, simultaneously taking into consideration some factors like the Indian industrial tradition of automatic annual increments in wages and salaries, the necessity of equalising wages with job content and differentiating between skills. While these are sound principles to which no one can object, the problem is always how to implement them within a time span on a national basis, and without arousing excessive trade union and worker opposition.

The specific recommendations of the Study Group which could be accepted and implemented are the elimination of disparities between the wages of Central and State Government employees where jobs are similar and require the same skills. The Sixth Finance Commission has selected these categories viz. peons, clerks, teachers, tehsildars and even deputy collectors, for immediate wage levelling. This would mean that the poor States should be assisted financially to raise the wages and salaries of these categories to the All-State standard. The minimum wage for all Governments throughout the country should be that fixed by the Third Pay Commission and should be implemented in all States within a period of five years. A set of model scales of wages and differentials could be worked out by a National Pay Commission, the setting up of which is warmly recommended by the Study Group.

In the public sector, since government is the principal employer, a similar effort at standardising wages and wage scales could be introduced. In actual fact, each industry has been deciding its own wage levels and the presence of some high wage 'islands' like the Shipping and Air Corporation and financial institutions has aggravated the disparities. Wages in these industries are decided by collective bargaining, which the Study Group considers a healthy democratic trend in industrial relations, an institution that may not be destroyed or excessively controlled. In fact it recommends the continuance of and support for collective bargaining to remedy the anomalies and wage disparities in the private sector. But both employers and employees should aim at rationalising the wage system on principles of fairness and equality. This is not going to be an easy task by any means as every trade union leader knows how difficult it is to persuade specific categories in the rank and file to change their customary differentials.

The use of job evaluation, applying the new scales to new entrants, abiding by the principle of 'equal pay for equal work' in determining wages and fixing differentials are well known and have been applied in certain industrial enterprises. The new institution, the Bureau of Incomes and Prices, suggested by the Study Group,

could become a useful instrument for measuring aggregate industrial productivity, so as to regulate the rise in annual average wages. But it seems to be imperative to realise that no governmental fiat is sufficient to transform the situation. Both workers and management need to be persuaded of the urgency of doing away with disparities that only arouse resentment and jealousy among their own ranks. As far as possible, raising the lowest scales of wages must be the first concern of industry. On the other hand, it is certainly advisable that even collective bargaining for wages should be hemmed in by certain limits prescribed by the financial authorities in view of the common good. The experience of the developed countries should not be neglected, so as to avoid the pitfalls of excessive high wages and uncontrolled union power from which countries like Britain and Italy suffer.

Dearness Allowance

Though dearness allowance has for its main purpose to preserve the real wages of the worker, its application suffers from several defects, such as diversity with reference to the linkage base, the mechanism and degree of linkage, periodicity and degree of neutralisation. This has produced a number of abnormalities, especially the distortion and arbitrary narrowing of differentials. Hence the emphatic proposal of the Study Group in favour of a single corrective formula by which to compensate for the rise in prices. It has also strongly suggested the linkage of the D.A. with the consumer price index as formulated in the All-India Cousumer Price Index for Industrial Workers. Though in the opinion of the Study Group, this index is based on several less essential items, this aberration could be remedied by gradual restriction to the most essential.

Obviously the D.A. will have to be revised constantly but for periods not less than three months and with reference to the average price index of the previous quarter. Similarly the extent of neutralisation should be such as to neutralise fully the essential items only at the lower salary levels and the amount of D.A. will go on tapering towards the top. So far two different methods have been used for determining the amount of D. A. payable to the workers—the wage-linked slab system and the value per index-point system. The Study Group has come out strongly in favour of the second alternative since it is simple, can be universally applied and does not distort the differentials. This type of system also isolates dearness allowances from the wage as such and is likely to lead to fewer industrial disputes. The value of each index point is to be around Rs 1.30. The index point system seems to be the prevailing one in two-thirds of the public

sector enterprises and in a large number of private sector firms.[15]

How this new system is going to be introduced into the prevailing abnormal situation in which the dearness allowance forms a major part of the workers' earnings is a moot point that the Study Group considers beyond its concern. Consolidation of a large part of the prevailing D.A. with wages will have to take place if the Study Group's recommendation is to have any salutary effect.

Bonus

About 7 million employees in the organised sector are covered under the Bonus Scheme that entitles them to a minimum bonus of 8.33 per cent of their annual wage (which is equivalent to one month's salary) for the accounting year 1976, whether the industrial unit earns a profit or lose. Though the trade unions are determined to retain their right to bonus, the concept has always been rather a nebulous one. Is it a defferred wage or a share in profits? As the Study Group has logically argued, if bonus is regarded as a deferred wage it should be incorporated into the wage structure. On the other hand if regarded as a share in profits, it cannot be paid if no profits are available, or where profits are determined or influenced by government policies. Moreover there is no doubt that its payment has caused much dissatisfaction to ineligible employees and led to a large number of labour disputes.

The question that the Study Group rightly poses is whether bonus should be paid in its present form or be transformed into some other species of wage payment? Apart from the alternatives suggested by the Study Group, one could mention that bonus be substituted by the extra month or the thirteenth month wage paid to the Italian workers at the time of Christmas. In India this amount could be paid at the time of the Pooja holidays. Will employers in India however accept such an alternative? It should not be so repugnant in as much as the month's wage is fixed once and for all. The Study Group however has suggested payment of bonus into a generalised pension fund. If the allocable surplus is available above this amount, only then and in the second place may it be paid in cash as bonus or credited to an individual's provident fund, or set against periods of unemployment. There are thus several ways of doing away with bonus by replacing it in a form more amenable to the wage situation as it has evolved in this country, since as it stands at present, the concept and payment of bonus does cause a lot of confusion and gives rise to endless industrial disputes.[16]

15. *Ibid.* p. 74.
16. *Ibid.* p. 81.

Prices

Prices and incomes are correlative and closely inter-related t one another, in the sense that what the purchaser considers to be price, is an income to the seller. This would be the case with th farmer who would like to have high prices for produce, so as t augment his income, but the industrial worker would consider suc prices as an inequitable curtailment of his income. Some kind o equity between the exchange has to be safeguarded so as to benef the two bargainers. One simply could not leave the transaction t the blind forces of market demand and supply. All the same, re lative prices do reflect the scarcity of natural resources changes i demand and technology. Nor is a gradual and gentle price rise s undesirable. It does act as a useful incentive to investment an expansion of employment.

An important issue raised by the Study Group in this connec tion is whether wage trends tend to follow price trends or producti vity trends? The theory is that wage trends will be inclined to follow whichever of the two other tendencies is higher. If productivit rises faster than prices, wages with be linked with growth in produc tion, while if prices rise faster than production, workers will ten to be compensated for the rise in the cost of living by higher wages In this latter situation, the rise in wages adds to the inflationar forces within the economy. Does recent Western experience confir this theory? This is not easy to prove since there are so many cause involved. Wages have risen so high in the absence of an income policy that the industrially advanced countries are finding it extreme ly difficult to compete in the international market. And wage restrain has become one of the important ingredients in the setting up of an incomes policy. In India, while the growth of production per worke since independence has been roughly in the range of two to three per cent each year, prices have risen much faster, especially during the last four years ever since the rise in the price of oil and the period of bad harvests of 1974 and 1975. Thus wage settlements have been influenced rather by the rise in prices than productivity. It is therefore imperative that price stability be ensured so as to secure stable incomes.

A certain number of controls over prices do exist at present. Besides the play of market forces, there is the Bureau of Industrial Cost and Prices that determines the prices of certain manufactured articles. Coal, steel and cement prices are controlled by the Government while farm prices are influenced by the minimum support price and the procurement price system under the Ministry of Agriculture. The other measures include the encouragement of production of

commodities in short supply, the use of public distribution agencies like fair price shops, regulation of imports and exports, and adjustments in excise duties.[17]

Since it is clear that within an integral incomes policy, stable prices at least of essential commodities are highly desirable, the Study Group has recommended a variety of strategies to hold the price line in agriculture and in the mass consumption sector of Industry. The strategy of support and procurement prices is already being applied in the rural areas so as to encourage the right level of supply through subsidies and incentives. But the scheme must be extended to benefit the small farmer. For this purpose incentives for the raising of cash crops and facilities for organised marketing would have to be provided. Otherwise the benefits of the scheme are often restricted to the middleman, the rural merchant and the big farmer. Agricultural production has been increasing over the last two years, but the FAO studies show that the poverty stricken peasants of the Third World do not have the purchasing power to buy the available grain. The International Labour Organisation has recently insisted that opportunities for self-employment must be provided to the peasants so as to increase their income. The Study Group could have stressed this aspect of the problem more convincingly when discussing stable prices in agriculture. Prices may be stable but they should also fall within the capacity of the destitute among the rural population to buy the extra grain.

In this connection, the Study Group has suggested higher investment in agriculture, especially the enlargement of irrigation facilities, improved technology and the implementation of the land reform laws by which the tillers of the soil would become its owners. Ownership by itself does serve as a great incentive to increased production, but not necessarily; and the new owner needs assistance to acquire the skills and the competence to raise credit and to market his goods.

There is ample evidence, as the Study Group has shown, to prove that the terms of trade as between agriculture and industry has been in favour of agricultural commodities. It is interesting to note that the net terms of trade—the proportion of the prices of goods sold by farmers to the prices of non—agricultural goods purchased by them—has been above 100 since the year 1964-65, and has over the span of 23 years improved at the compound rate of growth of 1.43 per cent per annum. Similarly, the terms of trade of all agricultural products have gone up at the rate of 1.34 per cent per annum. Most of this advantage has benefitted the large and the middle-size farm

17. *Ibid.* pp. 86-88.

owners. It is time that the small farmer and the agricultural labourers who work on these farms should be alloted their due share.

The second element in the strategy refers to the stability of prices that must be implemented in the area of mass consumption goods; in other words, items like cereals and pulses, vegetable oils, sugar, fuel, soap and the varieties of cloth commonly consumed. Of course many of these commodities are produced on the farm, but they must be made easily available and at stable prices to the rural and urban cousumers in the quantities in which and where they are needed. A wider network of public distribution must be spread throughout the country, whatever the administrative difficulties involved. Obviously this would also require the building up and maintenance of adequate buffer stocks to prevent local shortages and therefore price fluctuations. Thus a chain of fair price shops, consumer cooperative societies and other similar agencies will need to be established. To keep the price fair and reasonable, subsidies may have to be given.

Certain other elements in the strategy, such as a dual pricing system, the import of essential commodities in view of the comfortable foreign exchange reserves, and the formation of strong consumers associations only need passing mention. More important is the insistence by the Study Group on the general acceptance of the various measures mentioned in their report by all those concerned so as to produce a broad consensus of favourable opinion and the backing by law of some of the most important components of the incomes policy, such as the national minimum wage, a uniform system of dearness allowance, limits on dividends, salaries, perquisities and the setting up of the Bureau of Incomes and Prices. Functioning under the Ministry of Finance, this Bureau would recommend guidelines for wage-settlements and undertake continuous monitoring of price trends. It would be guided by an inter-ministerial group including secretaries of the Labour, Finance, Industry, Planning Commission and Commerce and representatives of trade unions, employers, State governments, agriculture and consumers, to determine productivity norms for industry, monitor prices, strengthen data collection and review policies already implemented. The purpose of the functioning of this supervisory body is rather vague and nebulous, but the Bureau of Incomes and Prices deserves to be set up and given a trial. It could consult with the other ministries and act as an autonomous body.

General appraisal

In the industrially advanced countries, an incomes policy as recently conceived seeks to achieve two main objectives. The first is

to bring about a rise in real incomes in conditions of full employment. The second is to introduce more stability into wages and salaries, so that the wages trend becomes more aligned to the trend in productivity. An incomes policy in these countries is however expected to be 'co-ordinating' rather than 'degenerating' or 'dominating'. The Scandinavian incomes policy is proposed as the pattern that ensures such co-ordination, without degeneration or domination.[19]

An incomes policy in a developing country like India will, on the contrary, have to consider very seriously the economic experience of the past two decades in respect of the growth and the equitable sharing of the gains of such growth without inhibiting growth and the expansion of employment. In recent years the crucial part played by agricultural production in the whole gamut of a developing country's growth activities has radically altered the emphasis in planned growth. It has been realised that economic growth by itself does not automatically lead to the solution of the acute problem of poverty, which results from an inequitable division of incomes and the consequent persistence of the poverty stricken people in the rural areas. This is the central proposition that must receive prior attention and, therefore, the determination to eliminate such misery and destitution in the quickest possible space of time must have the overriding priority in the strategy of an incomes policy.

If the Study Group had realised this fact in all its intensity, they should have provided a comprehensive economic and institutional framework within which a theory and practice of wage determination and incomes policy could have been accomodated so as to avoid the constant *ad hoc* solutions in this field which have been expressly deplored by the government in its terms of reference. But the Study Group preferred to bypass the problem, either because of the opposing convictions of the different members composing the study group, or because of its inability to provide the necessary framework since the time at its disposal was so short. But in the aftermath of the recent Emergency, and the upsurge of a determination to safeguard a thoroughly democratic political community against the future inroads of authoritarianism, what could have been a better opportunity than the present enquiry to indicate the radical economic transformation required for this purpose and frame an incomes policy within this context.

To some extent the recommendations of the Study Group are sufficiently radical to testify to their awareness of the problem. For some time now official thinking and popular opinion have favoured raising the lowest wage levels to a certain minimum, and therefore

19. A.J. Fonseca, *Wage Issues in a Developing Economy, op. cit.*, p. 145.

the national minimum recommended by the Study Group should not be rejected out of hand as too abysmally low and therefore likely to inhibit the payment of higher wages in Kerala and Punjab. It certainly represents a minimum of subsistence for the destitute and the seriously destitute poor in the rural and urban areas. It would have been perfectly useless prescribing a higher figure which would only have caused greater unemployment where the capacity to pay was limited.

While the Study Group has rightly insisted that the benefits of any increases in wages should be concentrated in the lower pay levels, and that D.A. should not be allowed to upset the differentials when tied to the slab system, and that bonus should be transferred to social security funds, it has unfortunately only roused the violent opposition of the trade unions because of the clumsy manner in which these recommendations have been framed, and in the absence of a clear-cut comprehensive incomes policy. As has already been suggested previously, bonus could be gradually transformed into a thirteenth month wage, since there seems to be quite a large body of opinion within the country that regards bonus as a deferred wage. Obviously such a recommendation would have met with severe criticism from employers, butthere is a precedent for the thirteenth month wage in other countries like Italy for instance. As for the dearness allowance, quite a number of wage boards and industrial tribunals have already prescribed consolidation of a major part of the D.A. with the basic wage. It is surprising that the Study Group failed to refer to these procedures before coming out in favour of the index point method of determining D.A. This would have largely mollified trade union opposition.

On the other hand, top incomes need to be curbed, especially of the self-employed. A first beginning would be the drastic implementation of the company and income tax laws that are already in force. Of course a basic objection to this fiscal recourse remains in as much as leftist thinkers still cling to the idea that until the assets that produce these incomes are not confiscated, no real change in distribution will take place. This is an empirically false proposition because in many of the industrially advanced countries property is widely distributed and the basis of power today is not ownership but more often technical skill and know-how, or the belonging to a social group, or being born in a specific class. For these social obstacles, no purely economic remedies are available.

Finally, the Report on Wages, Incomes and Prices should not be rejected out of hand as one more fruitless exercise, since it has not won universal acclaim. Despite the controversial issues that it has raised and to which it has sought to provide some drastic remedies, the report marks one more step in the long road towards building a

more egalitarian economy in this country. Compared to what is called the '*giungla retributiva*'—the retributive jungle—of the Italian wage system, the Indian wage structure is far less complex and rigid, and since industrial capability is expanding into the middle stage between the industrially 'developing' and 'developed' societies, there is quite a fair chance of introducing a rationalised wage system even if it causes some pain in certain quarters. More so is it necessary to pursue the demand for a comprehensive incomes programme based on sound democratic principles that will further the establishment of an egalitarian society.

In the final paragraphs of the report, there is some reference to a process of consultation and discussion leading to a broad consensus, in regard to the main outlines of the policy, and that "given our democratic set-up the major interested groups should be involved in the implementation of the policy." This desire of the Study Group could have been spelt out more effectively had they insisted on greater participation of workers at all levels both in agriculture and industry, and peoples' participation in every social institution, where their economic and political welfare is concerned. Such participation that induces personal responsibility is to be considered in some way the safest measure to achieve the type of egalitarian society that so many groups within the country are striving to construct and stabilise.

Migration and Ecological Structure: The Case of a Town in the Punjab

Sarita Kamra

This paper studies the impact of migration on the ecological structure of a town in the Punjab. Using a modified zonal model, the study finds that the spatial distribution of both "natives" and "migrants" reflects the dual ecological structure that is characteristic of pre-industrial towns; yet, as the analysis of caste and socio-economic status shows, the presence of elite groups on the periphery of the town is not because of outward residential mobility but migration.

Migrants, who form a large proportion of the population of any growing urban centre, have attracted besides sociologists, scholars from various disciplines like economics, administration, demography and town planning. Most often the studies revolve around one theme, the inter-urban or rural-urban movements of people and the related factors. Migration is an effective instrument of change in the ecological structure and yet there is hardly any study of Indian cities dealing with intra-city analysis of migrants from the ecological perspective. The purpose of this paper is to examine changes that have occurred in the ecological structure of a medium a sized town due to the process of migration.

In the field of human ecology, Burgess' (1961: 37-44) concentric zone model offers the most systematic and comprehensive explanation of the role of migration in the ecological patterning of American cities. The city is seen as divisible into five concentric zones. *Zone-I* is designated as the central business district which is the hub of commercial and economic activity; encircling Zone-I lies *Zone-II*, known as the zone of transition. This zone is the slum and red-light area of the city. *Zone-III*, the zone of working men's homes, lies adjacent to the zone of transition. *Zone-IV* which contains better residences of professionals and the middle classes encircles Zone-III. Beyond the fourth zone lies *Zone-V*, known as commuter's zone. As the name suggests this zone consists of residential suburbs.

Dr Sarita Kamra is in the Department of Sociology, Panjab University Chandigarh.

The city, grows by expanding outwards radially from the centre. The population spills over from one zone to the next outer zone. The central locations due to expanding commerce and industry, become noxious points of environmental pollution, noise and congestion. Therefore the elites prefer to live away from the central areas. Moreover, with the fast modes of transportation at their disposal, access to the centre no longer remains a problem for the elites.

The central areas, abandoned by the elites in favour of the peripheral areas, attract the migrant and non-white population. These migrants move to other zones as their status improves. The central areas are thus always in a state of flux. They are most receptive to migrants as the institutional controls are relatively fluid here. Thus in-migration (as it brings heterogeneous population groups to the city) and intra-city residential mobility function as instruments of change in the city structure.

In contrast to the above study Sjoberg (1960), in his descriptive study of pre-industrial cities the world over, concludes that the ecological structure of the pre-industrial city is characterised by the pre-eminence of the city centre over the periphery. The important buildings and day-to-day facilities are located in the centre. As such, the elites concentrate near the centre and the poor are relegated to the outskirts of the city.

In the literature on the Indian cities one finds divergent views on the ecological structure of the cities.[1] This is partly due to regional, historical and economic differences among cities and partly due to differences in the approaches and methods of study of scholars belonging to different disciplines. Moreover, it is only recently that some attempts (Gist's 1958 study being an exception) have been made to analyse the ecological structure systematically in the light of urban theory (Berry and Rees 1969; Mehta 1972). Combining the theories of the industrial city (Burgess 1961) and pre-industrial city (Sjoberg, 1960), these authors suggest that Indian cities exhibit a dual ecological structure in which the traits of pre-industrial cities exist along with those of industrial cities. While the elites are still dominant in the central areas, those choosing peripheral locations are also increasing in number. As a result, a number of elite colonies have sprung up in the periphery which are earlier occupied preponderantly by the lower classes.[2]

1 Studies expressing different opinions include Spate and Ahmed (1950), Gist (1958), Kar (1960), Mukerjee and Singh (1961), Brush (1962), Mohsin (1964), Chatterjee (1965), Singh (1966), Berry and Rees (1968), Sundram and Chandrasekhar (1968), Brush (1968), Mehta (1972).

2. This paper is based on a study entitled "Changing Ecological Structure of Nabha Town." The results of the investigation revealed that, although the dominant pattern of the ecological structure was pre-industrial, there was a distinct emerging trend towards a dual pattern similar to the findings of Berry and Rees (1969) and Mehta (1972).

In the studies by Burgess and Sjoberg the quality of the pattern is explained implicitly, or explicitly as emerging due to the process of decentralisation, that is the outward movement of the elites from the centre to the periphery. But they do not pay much attention to the role of migration.

Residential mobility, although a very important process in the ecological transformation is but one of the several ecological processes operating in the city. The ecological structure, to a large extent, is moulded by the process of imigration, as it brings large inflows of people from near and distant communities. Migrants, on their arrival, find a niche in the ecological structure that already exists in the urban community.

However, there arise problems of adjustment and assimilation of the newly arrived migrants in the pre-existing structure, often leading to structural changes in the process. The problems of adjustment are more severe when migrants are from different cultural regions. In the American cities, the migrants were mostly non-whites hailing from different countries (Freedman 1970: 178-200; Lieberson 1963). However, in the Indian cities the historical and present conditions under which migration took place as well as the nature of migration, have been entirely different. The cities generally draw their population from the same region or other regions of the country. Thus keeping in view the peculiarities of the Indian urban scene we may examine the role of migration in Nabha, a town in the Punjab.

The two major concerns of this paper are: firstly, to what extent are the migrants absorbed in the pre-existing ecological structure and which are the new structural contours that have emerged in case of variation in the distribution of the two groups; secondly, how far the process of residential mobility accounts for the differences in the spatial distribution of the "natives" and migrants.

Sample

The data were collected during fieldwork in Nabha (population 34, 761 in 1971), an old feudal town in the Punjab. Economically, Nabha may be classified as a service-commercial town. The sample was drawn by a two-stage systematic area sampling. It consisted of 24 census blocks and 320 heads (mostly male) of households as indicated by the family members. The sample was finally reduced to 282 persons due to non-response and non-availability. For identification on the map the letters of the alphabet A to X were assigned to the 24 blocks which comprised the total sample.

The respondents born in Nabha have been classified as "natives" and those who came from outside as migrants. In this study the place

of birth (and not the period of stay in Nabha) is the criterion use to differentiate migrants from natives.[3] In the sample there were 177 migrants and 106 natives.

The fact that Nabha has grown largely due to migration is is warranted by the preponderance of migrants over natives. Like other medium sized towns, this town is culturally and ethnically more homogeneous than the large cities. Most of the migration has taken place from areas which belong to the same cultural region. Therefore it is emphasised that the term migrant as used here does not necessarily imply cultural differences from the natives. However, the exception to this are the people who migrated to Nabha as refugees during the 1947 Partition. Out of 177 migrants, 38.77 per cent came to Nabha between 1947 and 1950 as displaced persons. This special feature of migration to Nabha has to be kept in view, since these persons speak Punjabi with a different accent and mix only among themselves.

The influx of the Partition refugees was somewhat absorbed by houses vacated by the Muslims. However, the rise in housing demand resulted in a spurt of building activity in the mid-fifties. Several new localities emerged in areas lying vacant in the town and on its outskirts. Thus the periphery consists of the largest number of blocks which were recently developed.

Analysis

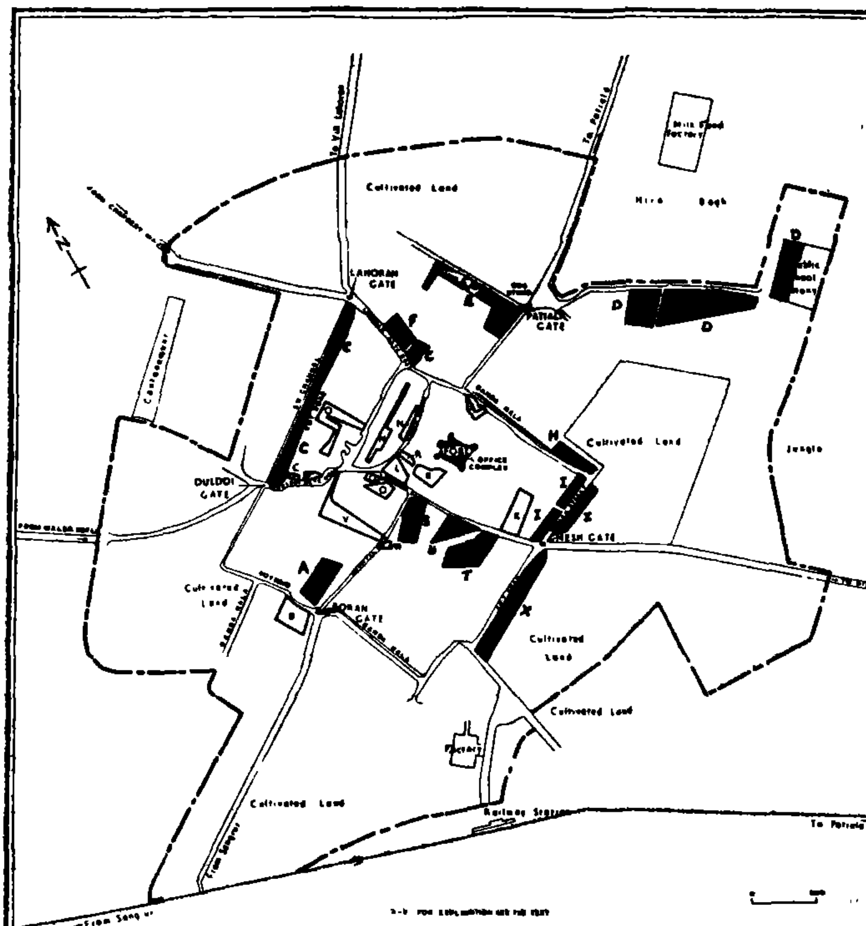
If immigration is a source of change in the ecological structure, the spatial distribution of migrants would differ from that of the natives. Therefore in comparing the migrants with the natives we propose first of all to sort out the areas of migrant concentration. Since the possibility of intermixing among the migrants and the natives cannot be ruled out, to identify areas with a sufficiently large number of migrants the average percentage of migrants was calculated for the total sample. The blocks having a percentage of migrants higher than the average (62.33 per cent) were designated as areas of migrant concentration.

The blocks so characterised are G,S,U,T,F,W,E,A,C,H,I,X and D (see Map). These areas, as the map reveals are located away from Sadar Bazaar, the main commercial centre of the town. With the exception of Block D (located outside Patiala Gate) the remaining areas of migrant concentration are located inside the town gates.[4] These

3. Out of 177 migrants 76.09 per cent came to Nabha after 1947. Only 21.91 per cent migrated before 1947. Out of these still fewer came before 1941. Therefore the exact period under consideration is from 1941 i. e. a span of thirty years.

4. Being the capital of a princely state, Nabha has a fort located in the heart of the town, and it is encircled by the town wall having six gates.

Map: Areas of Migrant Concentration, 1971, by Sample Blocks



Above average

Below average

blocks are spread along the old boundaries of the town marked by the Kot Roads. Some of these blocks, particularly F, W, E, A, X and D, were constructed after 1950. Blocks G, S and some parts of U and A were occupied by Muslims before 1947.

As the map reveals, the areas of migrant concentration are located away from the centre of the town while the natives are primarily located near the centre. Though the choice of location is to some extent regulated by the availability of housing facilities, social factors also play a significant role. The native residents, for instance, may not welcome strangers in their midst. Moreover, those who migrate, quite often at the instance of their friends and relatives, prefer to live with close kin and friends. This is especially true of displaced persons. Segregation, whether induced or voluntary has perpetuated the concentration of migrants in the outer areas.

Consistent with the above finding that distance from the main marketing centre is an important variable in determining location with regard to nativity status, we may examine the distribution of natives and migrants in terms socio-economic status.[5] For this purpose the 24 census blocks in the sample were classified into three zones. This was done according to increasing distance from the main marketing centre —Sadar Bazaar. which is located approximately in the geographical centre of the town.[6]

There is ample evidence (Table 1) to suggest that this town is characterised by a dual ecological structure which is, however, predominantly pre-industrial. The proportion of higher castes to the total respondents in each zone declines as distance from the centre increases. The inner and middle zones are inhabited by persons of higher caste, but their proportion is relatively low in the outer zone. At the same time, we find elites residing in the outer zone, which is a negation of the pre-industrial pattern.

The same pattern obtains when the total sample is split among the natives and migrants. The socio-economic status of natives and migrants declines as distance from the centre of the town increases

5. Caste status and occupational prestige (both obtained from rankings done by a group of persons) have been treated separately as the two variables form separate dimensions of socio-economic status. This is evident from the values of gamma (γ) calculated separately for Hindu and Sikh castes.

Caste and Occupational Prestige
(Hindu castes) $\gamma = .36;\ p = .02$
Caste and Occupational Prestige
(Sikh castes) $\gamma = .55;\ p = .01$

6. Blocks L, N, M, Q and R comprised the inner zone; blocks located adjacent to the inner zone (J,G,S,V,U,T,O) made up the middle zone; and blocks located along the periphery (K, F, P, W, E, C, H, I, X, B and D) comprised the outer zone.

(Table 1). The consistency of the pattern is broken in the inner zone because a few persons of the tailor caste are living in a street located behind the Fort.[7]

Table 1 : Distribution of the Higher Castes* in the Three Zones

	Total Sample	Natives	Migrants	
	Percentage of higher caste respondents to total persons in each zone	Percentage of higher caste natives to total natives in each zone	Percentage of higher caste migrants to total migrants in each zone	Z test for difference between b and c
Inner Zone	53 (89.83)	35 (85.36)	18 (100 00)	Z =2.60 p <.05
Middle Zone	70 (85 36)	22 (91.66)	48 (82 76)	Z =.74 p > .05
Outer Zone	84 (59 15)	13 (31 71)	71 (69.60)	Z=4.42 p < .05

*The data are presented for higher castes as the opposite would be true for the lower castes.

A similar pattern emerges when we consider persons in the higher prestige occupations (Table 2).

Table 2 · Distribution of Persons in High Prestige Occupations* in the Three Zones

	Percentage of respondents of higher occupational prestige to total persons in each zone	Percentage of natives of higher occupational prestige to total natives in each zone	Percentage of migrants of higher occupational prestige to total migrants in each zone	Z test for difference between b and c
Inner Zone	46 (77.96)	34 (82.93)	12 (66 67)	Z=1.29 p > .05
Middle Zone	56 (68 29)	21 (87.50)	35 (60 34)	Z=2.91 p <.05
Outer Zone	56 (39 43)	13 (31 71)	43 (42.54)	Z=1.24 p > .05

*The data are presented for higher status occupations as the opposite would be true for lower status occupations.

7. This is not unusual in the pre-industrial cities. Sjoberg (1960) has observed that the ecological structure of the pre-industrial city is complicated by the fact that the persons of lower class groups, who work as servants of the elites, also reside in the central areas.

The overall similarity between the natives and migrants disappears when intra-zonal differences are considered (Table 1 and 2). The natives of higher status are preponderant in the inner and middle zones. On the other hand, in the outer zone the proportion of migrants of higher status is greater than that of the natives. In the inner zone (Table 1) 35 persons out of 53 are natives while in the outer zone 71 persons out of 84 are migrants. The same trend obtains when we consider occupational prestige (Table 2). However, the differences in the zonal distribution of migrants and natives are sharper by caste than by occupational prestige.

Thus despite similarity in the gradient of status between the natives and migrants, intra-zonal difference reveal that the central zones consist of natives of higher status and the outer zone has migrants of higher status in greater proportion. This shows that the natives conform to the pre-industrial pattern while the migrants deviate from it. The duality in the ecological structure evidently exists due to the settlement pattern of the migrants. The above data are, however, insufficient to indicate whether or not the migrants of higher status moved to the outer areas from the inner zone. To clarify this issue we may examine the pattern of residential mobility[8] among natives and migrants controlling for their socio-economic status (Table 3).

Among the higher castes (percentages by column and row), the inner zone has the largest proportion of stable natives. Their proportion decline as distance from the centre of the town increases. Conversely, the proportion of stable migrants increases with distance from the centre and it is the highest in the outer zone.

Residential mobility is relatively less important in accountihg for the presence of higher castes in these two zones. In the middle zone, however, residential mobility is as significant as the nativity status. The H-test of analysis of variance indicates that the zonal distribution of the four groups—stable natives, stable migrants, mobile natives, and mobile migrants—is significantly different for each group.

It is therefore evident that in the case of Nabha migration has played a more dynamic role than residential mobility, which is on the whole quite low. A substantially large proportion of persons is stable among both natives and the migrants. However, among the lower castes the value of H is very low. There are no significant differences among the four groups. The lower castes, irrespective of their place of birth, tend to settle down in the outer areas of the town. Moreover

8. Residential mobility refers here to change in residence from one zone to another. Moreover, as there were few persons who had shifted two or more times, only that move has been considered which was made before coming to the present place of residence.

the lower castes are less mobile than the higher castes. Similar results are obtained if we control for occupational prestige (Table 4).

Conclusion

As we have seen, migration has played a crucial role in changing the ecological structure of Nabha. The migrants are concentrated in the outer areas while the natives are in the central areas. However, the migrants are distributed in different sub-areas (zones) in such a way that their distribution by social characteristics tends to be similar to that of the natives.[9] The similarity in the inter-zonal distribution of the natives and migrants is indicative of the same.

The intra-zonal differences in the distribution of migrants and natives suggests that the natives conform more to the pre-industrial pattern while the migrants deviate from it. The natives of higher status are preponderant in the inner areas and the migrants of higher status in the outer areas. The examination of data on residential mobility revealed that these migrants did not move outwards from the central areas. On the contrary when they arrived in Nabha they settled down in the peripheral areas and remained there.

The native elites, on the other hand, have continued to reside in the central areas. Residential mobility being quite low among both natives and the migrants, it is the factor of birth that accounts for the dual gradient of status. Thus it is abundantly clear that the dual ecological structure, with the elites presisting in the central areas and now taking up residence in the peripheral areas, is not so much the consequence of outward mobility as it is of the process of migration.

The findings reported in this paper suggest that the emerging ecological structure of this town does not represent an evolutionary sequence whereby the pre-industrial pattern is being transformed into the industrial pattern. The pre-industrial structural contours still persist while the new structures are superimposed by the forces of urbanisation and social change.

This raises an important issue as to how far we can generalise about other towns of India on the basis of the findings we have reported. The peculiar characteristics of this town impose certain limitations on more general statements as the ecological structure is highly influenced by local historical and economic conditions. It is only when we have more studies on how the ecological structure of Indian towns and cities with different population sizes and economic bases is evolving that we can venture to generalise. Moreover, in order to understand the dynamics of ecological change we need studies not only of the pre-

9 See Freedman's (1970; 178-200) findings for American cities in the forties.

Table 3: Residential Mobility among Natives and Migrants Controlling for Caste Status by Zone

	Higher Castes								Total		Lower Castes								Total	
	Stable				Mobile						Stable				Mobile					
Zone	Native		Migrant		Native		Migrant				Native		Migrant		Native		Migrant			
Inner Zone	53.34 (32)	60.38	9 37 (9)	16.98	30.00 (3)	5.66	21 95 (9)	16.98	53	100 00	16.67 (5)	83.33	—		16.67 (1)	16 67	—		6	100.00
Middle Zone	33.33 (20)	28 57	30.21 (29)	41.43	20.00 (2)	2 86	46 34 (19)	27 14	70	100.00	6 67 (2)	16.67	22.58 (7)	58.33	—		33.33 (3)	25.00	12	100.00
Outer Zone	9.52 (8)	13.33	60.42 (58)	69.05	50.00 (5)	5.95	31.71 (13)	15.48	84	100.00	76 66 (23)	39.66	77.42 (24)	41.38	83.33 (5)	8.62	66.67 (6)	10.34	58	100.00
Total	100.00 (60)		100.00 (96)		100 00 (10)		100.00 (41)		207		100 00 (30)		100.00 (31)		100.00 (6)		100 00 (9)		76	

$H = 41.54$, $df = 3$; $p < .05$ $H = .204$; $df = 3$; $p > .05$

Table 4: Residential Mobility among Natives and Migrants Controlling for Occupational Prestige by Zone

Zone	Higher Occupational Prestige					Lower Occupational Prestige				
	Stable		Mobile		Total	Stable		Mobile		Total
	Native	Migrant	Native	Migrant		Native	Migrant	Native	Migrant	
Inner Zone	50.85 (30) 65.22	8.20 (5) 10.87	44.45 (4) 8.69	24.14 (7) 15.22	46 100.00	22.58 (7) 53.85	6.06 (4) 30.77	—	9.52 (2) 15.38	13 100.00
Middle Zone	32.20 (19) 33.93	34.49 (21) 37.50	22.22 (2) 3.57	48.28 (14) 25.00	56 100.00	12.90 (3) 11.54	22.73 (15) 57.69	—	38.10 (8) 30.77	26 100.00
Outer Zone	16.95 (10) 17.86	57.38 (35) 62.50	33.33 (3) 5.36	27.59 (8) 14.28	56 100.00	67.74 (21) 24.42	71.21 (47) 54.65	100.00 (7) 8.14	52.38 (11) 12.79	86 100.00
Total	100.00 (59)	100.00 (61)	100.00 (9)	100.00 (29)	158	100.00 (31)	100.00 (66)	100.00 (7)	100.00 (21)	125

$H = 22.75$; $df = 3$; $p < .05$

$H = 3.83$ $df = 3$; $p > .05$

sent structure but also of the processes by which it has evolved to its present form.

REFERENCES

Berry, Brain J.L., and Rees, and Phillip H., "The Factorial Ecology of Calcutta," *American Journal of Sociology,* 74 (March, 1962), pp. 445-91.

Brush, John E., "The Morphology of Indian Cities," in Roy Turner (ed.) *India's Urban Future* (Bombay: Oxford University Press 1962), pp. 57-70.

———"Spatial Patterns of Population in Indian Cities," American Institute Report No. 6, 1968, pp. 362-91.

Burgess, Ernest W., "The Growth of the City: An Introduction to a Research Project," in George A. Theodorson (ed.) *Studies in Human Ecology* (New York: Harper and Row, 1961), pp, 37-44.

Chatterjee, A.B., "Ecological Structure of Calcutta's Twin," *National Geographical Journal of India,* 11 (n.2, June 1965), pp. 59-62.

Freedman, Ronald, "Cityward Migration, Urban Ecology and Social Theory," in Ernest W. Burgess and Donald J. Bogue (eds.) *Contributions to Urban Sociology* (Chicago: University of Chicago Press, 1970), pp. 178-200.

Gist, Noel P., "Ecological Structure of an Asian City Bangalore: An East-West Comparison," *Population Review,* 2 (January, 1958), pp. 17-25.

Kar, N.R., "Urban Characteristics of the City of Calcutta," *Indian Population Bulletin* (April, 1960), pp. 34-67.

Lieberson, Stanley, *Ethnic Patterns in American Cities.* (Glencoe: Free Press, 1963).

Mehta, Surinder K., "Patterns of Residence of Social and Economic Groups in some Indian Cities," Paper presented at Indian Census Centenary Seminar, October 1972.

Mohsin, Mohammad, *Chittaranjan: A Study in Urban Sociology* (Bombay: Popular Prakashan, 1969).

Mukerjee, R.K., and Baljit Singh, *Social Profile of a Metropolis: Social and Economic Structure of Lucknow, Capital of Uttar Pradesh, 1954-56* (Bombay: Asia Publishing House, 1961).

Singh, Ujagir, "Changes in the Built-up Area of Kaval Town in the Ganga Plain, India," *National Geographical Journal of India,* 12 (December, 1966), pp. 203-17.

Sjoberg, Gideon, *The Preindustrial City: Past and Present* (Glencoe: The Free Press, 1960).

Spate, O.H.K., and Ahmed E., "Five Cities of the Gangetic Plain," *Geographical Review* (April 1950), pp. 260-78.

Sunderam, K.V., and Chandrasekhar, C.S., "Urban Morphology and Internal Structure of Indian Towns: Some Case Studies," *National Geographical Journal of India*, 14 (March, 1968), pp. 61-64.

A Profile of Multilingualism in Bangalore: Language Usage in a South Indian Capital

Helen E. Ullrich

This paper, which reports the findings of a survey of six areas in Bangalore, is based on a modified random sample of 731 cases. Since more than 90 per cent of the sample spoke more than one language, Bangalore is clearly a multilingual city. Yet the distribution of language use ranges from predominantly multilingual to virtually monolingual. The most widely used language for literacy was stated to be English, and it was also unanimously chosen as the language of value in professional advancement, higher education and in arranging marriages. Hindi, which is less used than Kannada and English, is the major language for movies and songs. The mother tongue is the basic language within the family in an essentially monolingual environment but, even within the family, levels of respect, "solidary" and intimacy dictate choice of language.

Language choice in a multilingual society can take many different forms. There may be a complementary distribution in which each language is appropriate only for a predictable range of interactions. There may be another type of multilingualism in which various languages are appropriate in all situations and are used interchangeably. In yet a third type each social group has its own pattern of language usage and appropriateness. This would result in a patchwork of multilingualism with variant patterns. The purpose of this paper is to examine multilingualism in a South Indian capital to which there is considerable migration. To determine the nature of multilingualism in Bangalore, I conducted a survey investigating language use in different types of interactions,[1] as well as the perceived value of languages for various goals. The survey will show the interplay between regional language and world language as components in the multilingualism profile.

Dr. Helen E. Ullrich is in the Department of Oriental and African Languages and Literatures at the University of Texas at Austin. Among her books is *Competition and Modernisation in South Asia* (Abhinav, 1975).

The profile will consist of six sections. The first will concern the nature of the sample, data collection, and general ethnographic information. The second will be an overview of multilingualism contrasted with monolingualism in Bangalore. The third will focus on literary skills as represented in the sample. The fourth will contrast active use of language forms, as in speaking or writing, to passive use, as in listening or reading. In the fifth section interactions of varying formality and status dimensions will be examined with regard to language use and multilingual-monolingual character. In the sixth section the perceived value of language will be explored. Finally, the conclusion will consist of a summary of the profile.

Data collection, sample, and ethnographic material

The data were collected from six different areas of Bangalore: Baswangudi, Chik Pet, Frazertown, Indiranagar, Jayanagar, and Palace Orchards. These areas were chosen because, impressionistically, they represent different aspects of the population. Baswangudi is an upper middle class section inhabited primarily by Brahmins; Frazertown, a lower middle or middle class section of Christians, Muslims, Anglo-Indians, Hindus; Palace Orchards, an upper class cosmopolitan area; Indiranagar, a middle and upper middle class section Jayanagar, a lower middle or middle class area; and Chik Pet, an old commercial section. The areas differ as to how recently they have been developed, socio-economic background and religious background, but each area is assumed to have an internal homogeneity of socio-economic level and duration of residence in Bangalore.

Data were collected from every fifth household until one hundred households were sampled. In two areas, Indiranagar and Palace Orchards, both husband and wife were interviewed. If people from the fifth household were unavailable, the sixth household was sampled. As a result this is a modified random sample. The total number of valid cases in the sample is 731. The 69 missing cases are from Chik Pet, Indiranagar, and Palace Orchards. Ten are missing from Chik Pet, a commercial district, so the total Chik Pet data are culled from 90 interviews. Nineteen are missing from Indiranagar. One

1. Data for this study were collected while the author was a Senior Research Fellow of the American Institute of Indian Studies (1974-75) A grant from the American Philosophical Society (1976) made the keypunching of the questionnaire possible. An American Council of Learned Societies South Asia Fellowship (1976-1977) made possible the computerisation and analysis of the data. These aids in research are greatfully acknowledged.

Asha Krishniah, Varija Rao, Shree Devi and Rajendra Prasad collected data for me. Mary Wadington kindly commented on the statistical component of the paper. Thomas Baylis critically read the paper. Any fault in the paper is my responsibility alone.

hundred and eighty-one interviews were done in Indiranagar, 178 (89 households) of which represent husband and wife interviewed. Three households did not contain a spouse. The interviews then fall eight short of 100 households. The situation of the Palace Orchards' missing data is similar to that of Indiranagar. In Palace Orchards, 40 cases are missing. One hundred and sixty interviews were done. Fourteen households did not have a spouse to be interviewed. The interviews then fall 13 short of 100 households.[2]

The questionnaire has five major sections. The first contains ethnographic items including age, education, occupation, religious practices, type of family organisation. The second part focuses on the language or languages used in specific situations such as at work, at school, at home The third section focuses on the language or languages used with specific people such as friends, kinfolk, boss, strangers, servants. A fourth section deals with literacy. In the final section questions focus on perceived value of languages for such goals as career advancemeut, social status, getting a good spouse. Open ended questions allow a respondent the freedom to name as many languages as he or she thought appropriate. The assumption that languages are listed in order of frequency of use and of occurrence in a given context is supported by the data which shows the use of the native language is frequently named first and that other languages such as English and Hindi tend to be reported more frequently in second position.

The ethnographic data collected provide information on the nature of the sample. Occupation and education provide an indication of the types of contacts people have. Length of residence in Bangalore indicates the nature of the migration into Bangalore. Type of residence patterns, frequency of return home, and religious practices show ties with one's tradition.

Most people in the sample have more than a high school education (57 per cent) and are employed in jobs requiring education (61 per cent). (See Chart 1.) Fewer than 5 per cent are in traditional caste occupations. Most women, however, are traditional in the sense of being occupied within the household (90 per cent of the women). The economic classification of all but 6 per cent in the middle, upper middle or wealthy income brackets correlates well with expectations from the occupational and educational level.

Although the mean age of the sample is 42, the distribution of ages between eighteen and 82 is roughly even. The stratification of age is such that no one group is dominant.

More than half claim a hometown other than Bangalore. Of this group, roughly one-fifth (see Chart II) come from a radius of zero to 100 miles, one-fifih from 100-200 miles, one-fifth from 200-300

2. My belief is that these missing data do not skew the results of the study.

miles. Although proximity seems to be a factor in moving to Bangalore, over one-fourth of the migrant group are from more than 400 miles away. Fully 89 per cent of the total sample are from Karnataka itself and from surrounding states. The ties to home as measured by frequency of visit are: 11 per cent who visit more than once a monih, 63 per cent who visit at least once a year but not monthly, and 27 per cent who do not have an annual visit but who visit at least once a decade. Roughly three-fourths keep up with kinship ties in some fashion.

Family structure shows a strong tendency towards nuclear family organisation, although many respondents belong to various types of extended or joint families. Fifty-nine per cent belong to nuclear families consisting of spouse and children. Forty-one per cent are associated with some sort of joint or extended family. Fifteen per cent are part of a joint family including one or more married male siblings and his wife and children or of the father and his wife and children. Fifteen per cent are part of a patrilineally extended household consisting of a father's father or a father's mother in addition to the nuclear family.

Religious observances comprise an integral part of the daily family life of almost everyone. Ninety-one per cent worship at least once a day. However, the worship is not necessarily restricted to males. Excluding the 8 per cent who do not follow any religious practices, in only 36 per cent of the households is worship restricted to males. In 49 per cent of the households the women do the worship and in 23 per cent of this 49 per cent the wife performs the daily worship. This shows the increased role of women in a traditionally male area. In 15 per cent of the cases any member of the household may perform the daily worship. Festivals are generally observed by all. Seventy-eight per cent observe all festivals or all important festivals. Beyond that no particular pattern emerged as to which festivals are the first to cease being observed. Only 2 per cent stated that they do not observe any festival. From this it appears that regular religious practices are continued after migration to the city. Moreover, the daily worship is more likely to be dropped than is observance of major festivals.

The sample shows that male residents are most likely to be engaged in professional work or business. The women are most often housewives. Thirty-four per cent of the women and 58 per cent of the men have bachelor's degrees, but many fall in the range from not having graduated from high school on up to the bachelor's degree. The age variation in the sample is fairly evenly dispersed between 26-60 years. The sample is predominantly Hindu and within the Hindu category, predominantly Brahmin. The economic classification is primarily upper middle class with a significant number of people in the middle and wealthy income brackets. The sample has an even distri-

bution of from one to more than 46 years of dwelling in Bangalore.

There are no periods of great migration into the city evident from the group statistics, but rather a gradual and steady increase and migration into Bangalore through the years. Karnataka state, not surprisingly, is the major source of the migration. Sixty-one per cent claim Karnataka as their home state and therefore 15 per cent have migrated from other states. Almost as many (11 per cent) have migrated from Tamilnad. Thus, the other states immediately surrounding Bangalore are the source for most of the migration; however, fully 10 per cent of the sample claimed a North Indian state as their home state. Bangalore indeed seems cosmopolitan.

The typical person in this sample is a Brahmin male, 42 years old, and is employed as a white collar worker with a B.A. He may belong to a joint or nuclear family and keeps up his contacts with his home town. In this household there is daily worship and an observation of many festivals.

Language overview

In the sections of Bangalore sampled, multilingualism is the norm. Only 2 per cent of the sample is monolingual. The mean, median and mode of the number of languages spoken is four (Chart IV). Roughly 30 per cent speak four languages, 30 per cent more than four, and 40 per cent fewer than four. The maximum number of languages spoken is eight. Sanskrit is the only language listed which is not also represented as a mother tongue (Charts V and VI). No one claims Sanskrit as a mother tongue, but 1 per cent claim to speak it. Only languages with at least 1 per cent of the sample speaking them are listed Eleven languages are listed by fewer than 1 per cent. With the exception of Oriya, these languages—Arabic, French, German, Japanese, Malay, Persian, Russian, Swahili, Swedish, and Tagalog—all are languages spoken primarily outside of India and are primarily skills developed for education and business purposes. Since such a small sample speak these languages, they will not be dealt with further. English is the only language which may be regarded as a "foreign" language which is widely spoken in the sample. One can argue that English is no longer a foreign language because its use is so common within India. The value of knowing English is said to reside in its being a world language and being widely spoken. Then English is the lingua franca both in India and abroad.

The assumption is made that the order in which the language is listed is the order of greatest facility and use. Camparing the first language listed with mother tongue (Charts V and VI), the correlation is positive. Of the 26 per cent who list Kannada as their mother

tongue, 71 per cent list Kannada first. From this order of listing Hindi and English have their maximum strength as second or third languages; Kannada is most important as a first or second language.

Fifteen languages are listed as mother tongues. Of these fifteen the major languages are Kannada with 26 per cent and Tamil with 22 per cent of the sample. Hindi and English are the mother tongue of only 1 per cent. Putting all the North India, i.e. Indo-Aryan languages together, except for Hindi, other Indo-Aryan languages are the mother tongue of one-fourth of the sample, and Dravidian languages except for Tamil and Kannada are also named by one-fourth of the sample. Slightly less than three-fourths have a Dravidian language as a mother tongue.

With 90 per cent of the sample speaking more than one language, the population studied is clearly multilingual. The distribution of language use in different settings varies from predominantly monolingual situations (over 90 per cent)—speaking with family members belonging to older generations—to predominantly multilingual (over 80 per cent) for speaking with friends. In between (Chart IX) there are all levels of multilingualism and monolingualism Interactions in which over 90 per cent of the sample are monolingual are classified as virtually monolingual; interactions in which 80-90 per cent of the sample are monolingual are classified as limited monolingual; those between 58-77 per cent monolingual are classified as predominantly multilingual; interactions in which fewer than 58 per cent are monolingual are regarded as essentially multilingual in nature. These categories also follow the natural divisions in the data.

Literacy

The ability to read implies formal training in language skills. As South Indian languages have a formal variety of language very different from the colloquial language as the literary language and each of the four major Dravidian languages—Kannada, Malayalam, Tamil, Telegu—has a different script, literacy is acquired only through school or special educational measures. In the sample all but one person declared himself literate. Reading habits favour newspapers, with 96 per cent of the sample stating that they read newspapers. One-fonrth of these read newspapers in more than one language. Of the 94 per cent who read magazines, one third of these read magazines in more than one language. From newspapers to magazines to books, there is a progressive decrease in the percentage who read that particular medium. The statistics for those reading books are undoubtedly inflated. Although 81 per cent indicate that they read books, only 53 per cent remember the title of the last book they have read.

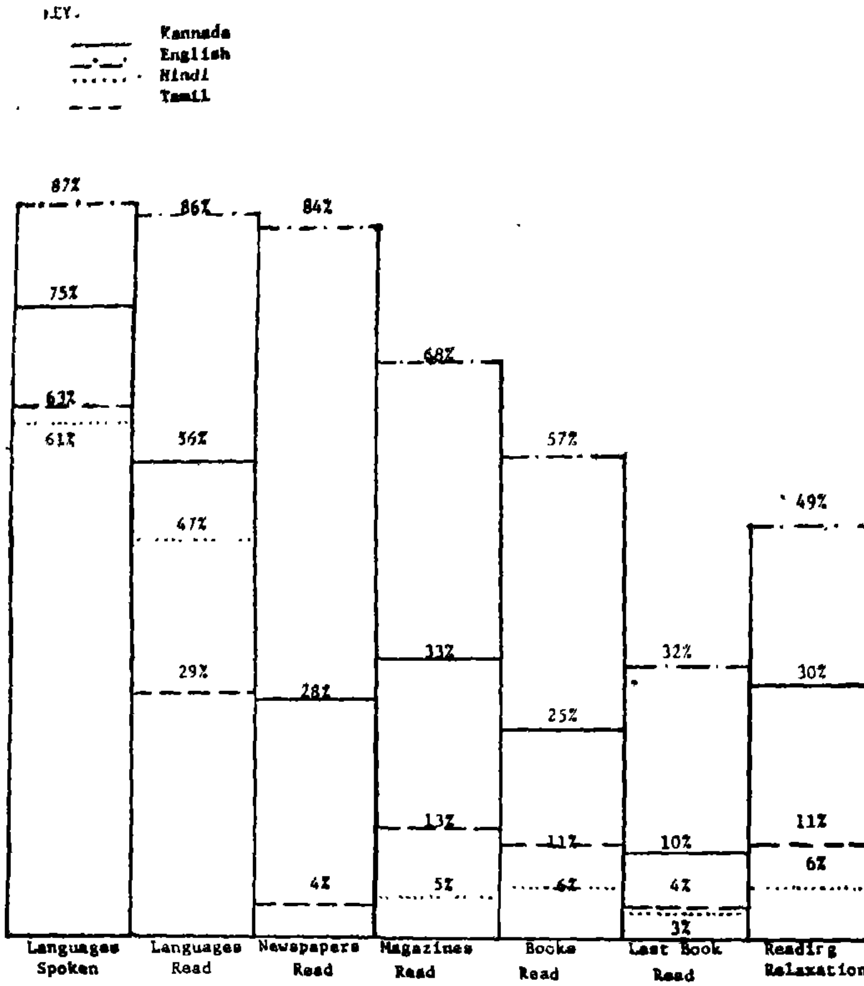


Chart A: Literacy

The mean, median and mode for number of languages read are all equal to three (Chart VII). Forty-four per cent are literate in one or two languages; 22 per cent in more than three. English is by far the most widely used language for literacy. It ranks first in all the categories. Kannada ranks second in all the categories. Hindi ranks third as far as the number of people who claim literacy in it, but it is not even listed as a language for newspaper reading and ranks fourth for the other categories below Tamil (Charts XIV, XV, XVI).

In the order of listing languages, Tamil and Kannada are listed first by the greatest number, so that it appears these are the languages in which 44 per cent are most proficient, and the first language in reading for these people. In second place the non-native languages of

Hindi and English rise significantly. English is listed by most as the second language. An approximately equal number lists Hindi as a second language as lists it as a third language (Chart A).

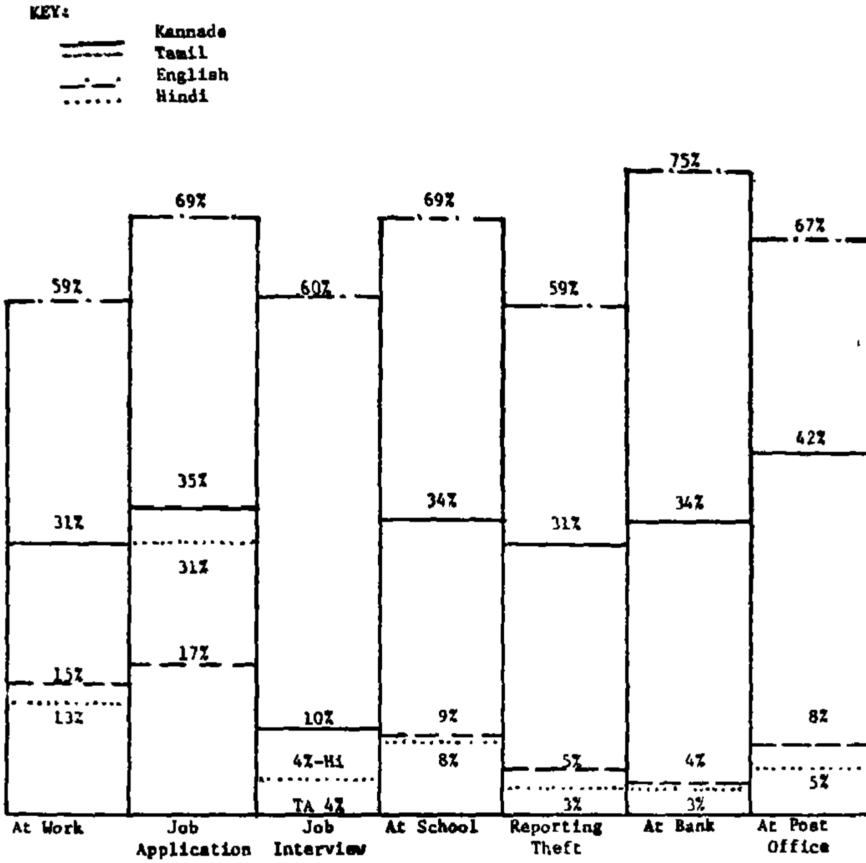


Chart B—1: Languages Spoken in Selected Situations

Passive and active use of language

Speaking, reading and writing require some degree of active control over a language. Listening to a language in a situation where responses are not required, such as to political speeches or to songs, requires only passive knowledge or even dutifully sitting, comprehending nothing but the social event. Viewing movies similarly requires only passive knowledge as much of the content can be ascertained from the action. To engage in passive linguistic pursuits implies the value of that language in at least certain realms.

Just about everybody (98 per cent) listens to songs. Three-fourths of those in the sample sing. Those who sing primarily use one language. Over half listen to songs in more than one language, only about one-tenth (11 per cent) sing in more than one language (Chart

XVII). Hindi is the major language for listening to songs, singing songs, and attending movies, but is of less significance in the political arena. Approximately three-fourths of the sample attend movies in more than one language; roughly one-third of these multilingual moviegoers attend movies in two languages; one-third in three languages; and one-third in more than three languages. This contrasts with listening to songs in which roughly two-thirds are multilingual with one-half bilingual, one fourth trilingual, and one-fourth listen to songs in more than three languages. Listening to political speeches is characteristically a more monolingual event. Over 60 per cent of those who listen to political speeches listen only in one language. The statistics indicate the extent to which the population shares its multilingualism in the public world of entertainment in contrast to the realm of politics where English provides the common ground.

The passive use of Hindi in attending movies (79 per cent) and

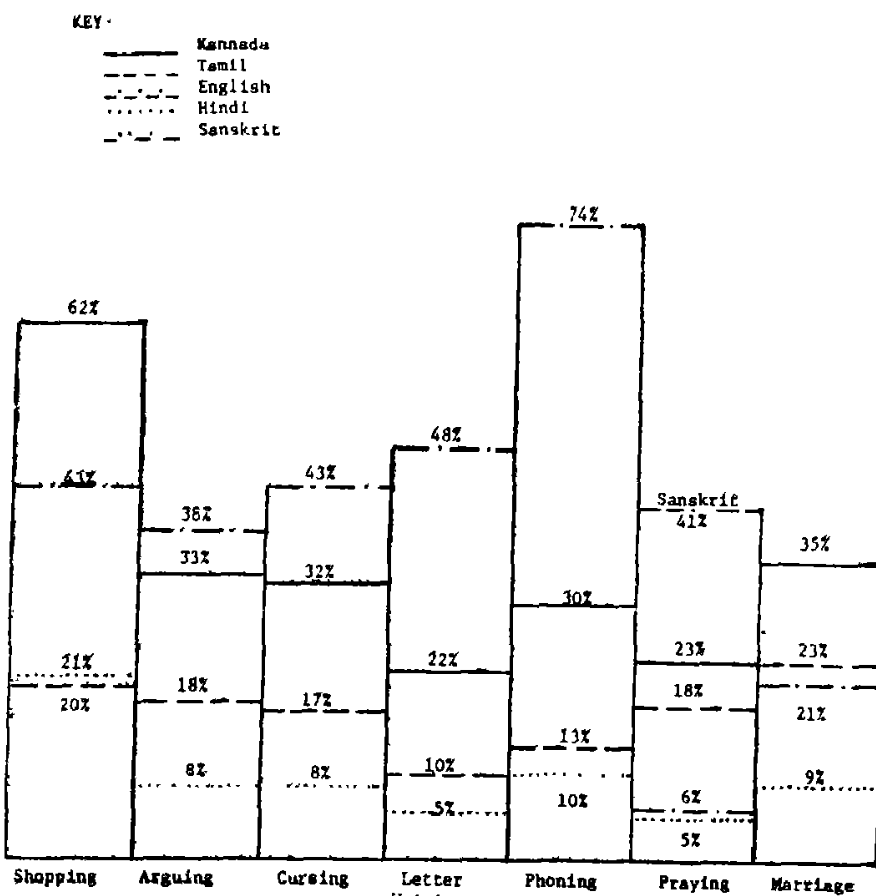


Chart B—2: Languages Spoken in Selected Situations

listening to songs (62 per cent) exceeds the number of people who speak Hindi (61 per cent). While these people probably have a listening knowledge of Hindi, some have not developed speaking skills. There is some reticence in developing active skills in Hindi. One lawyer who speaks Hindi told me that he does not speak Hindi on business trips to Delhi because he has an unmistakable accent. Therefore, he uses English which does not mark him as an outsider open to ridicule. Passive use of a language does not expose people to the possibility of ridicule, so Hindi is more widespread in passive use than active.

Formality, solidary, and social distance

Levels of respect, solidary, and intimacy may dictate language choice. Different levels of respect are determined by a power differential based on some inequality—such as age, profession, sex, socio-economic class, caste—which is recognised as important in speech patterns. The power or respect dimensions are superior, equal, subordinate, unmarked. Solidary[3] refers to the absence of a power differential. People of the same age, profession, sex, socio-economic class, caste exhibit solidary along the appropriate criterion. (Chart XIX.) The family provides a framework for various levels of rank. Those elder to ego are of superior rank. People in this category should be shown respect. For the purposes of this paper those of the same generation are considered equal in status and solidary. This is admittedly a simplification, as elder siblings in a Dravidian kinship system are shown linguistic respect whereas younger ones are not. Ego's children are subordinate in status. Solidary exists among friends. That friendship solidary differs from family solidary is evident in the language patterning. Mother tongue is the basic language within the family in an essentially monolingual evironment. Solidary among friends involves extensive use of English and Kannada, as well as limited use of Tamil and Hindi.

Outside of the family circle, one's employer and one's professor are classified as superior in rank and therefore non-solidary. In contrast, one's classmates would be equal in status and potentially solidary in relationship as with one's friends. A servant is inferior in rank and so non-solidary. Situations may also be classified as to solidary. At work, at the bank, or at the doctor's office, the situation is inherently non-solidary. The emphasis is on inequality between a provider of services and one requiring services. At home or while joking the situation is inherently solidary where shared values are emphasised

3. This use of solidary is taken from R. Brown and A. Gilman, "The Pronouns of Power and Solidarity," in T.A. Sebeok (ed.), *Style in Language* (New York: John Wiley and Sons, 1960).

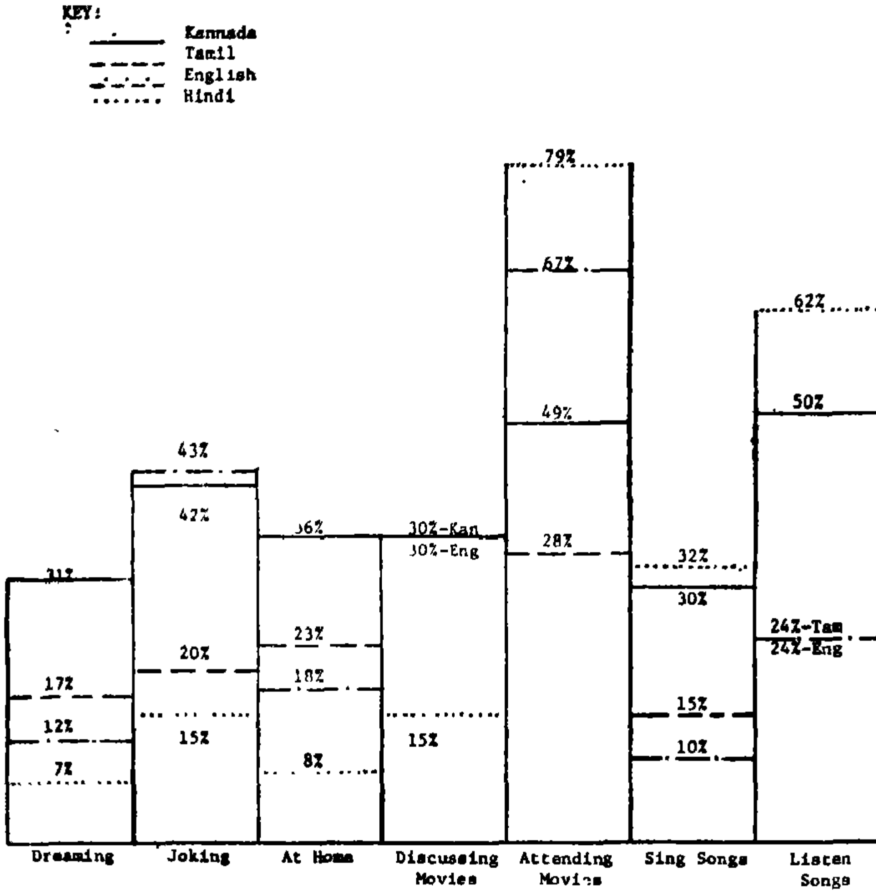


Chart B—3: Languages Spoken in Selected Situations

(Chart B—1-3). Language patterns with regard to respect and solidary will be analysed in this section. Family and friends will be analysed as a unit. In general, the kinship system in India is the most important organising focus of an individual's life. It may control whom a person will marry, with whom a person socialises, and provide an individual with his orientation for viewing life. The importance of the family can be seen contrasted with other relationships. In such a contrast, the family and kinfolk all comprise a solidary unit (Chart C). Within the structure of the family itself the respect dimension is just as obvious as the family solidary when viewed outside the family. For purposes of the macro-analysis, family and friends comprise the solidary category. After analysing this, the non-solidary category will be examined.

Multilingualism within the family exhibits an interesting generational change. There is a progressive increase in multilingualism as

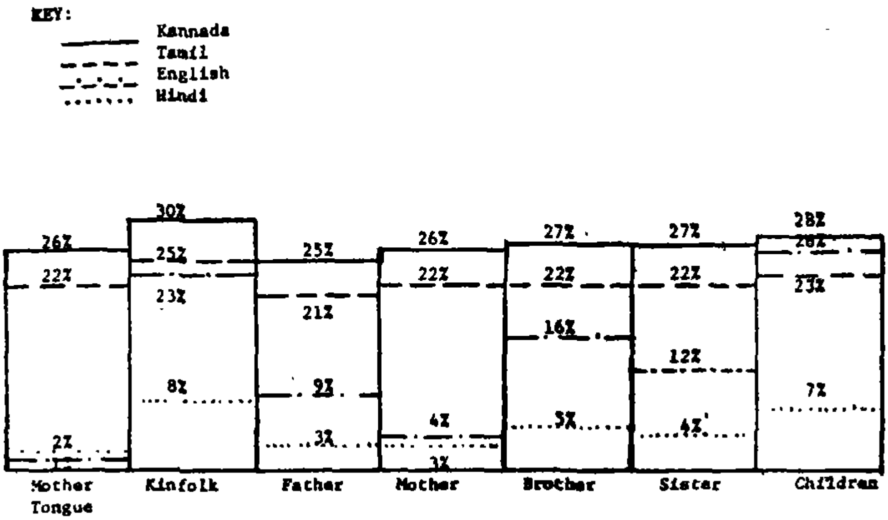


Chart C: Mother Tongue Contrasted with Language Spoken in Family

the individual deals with younger generations. When speaking with one's parents, in-laws, or grandparents, over 90 per cent of the sample only use one language, the mother tongue. With siblings between 80 and 90 per cent use only the mother tongue and when speaking or playing with children only three-fourths use the mother tongue. With siblings and with children English is the language most widely used second only to the mother tongue. Note that in all cases except for speaking to one's mother the percentage of English rose in the listing of the second language. English is clearly the language of choice as a second language, but is the third most widely spoken language in the overall listings. As expected, mother tongue has a high correlation with the language spoken in the family. The range for Kannada, Tamil, other Indo-Aryan languages and Dravidian languages varies less than 5 per cent for the different categories of kinfolk. The amount of Hindi spoken in the home is not much greater than the other Indo-Aryan languages. Six per cent more people speak Hindi with relatives than speak it as a mother tongue. On the other hand, only 1 per cent claim English as a mother tongue; 23 per cent speak English with relatives.

English speaking within the family is oriented towards males and younger generations. Fewer people speak English with their mothers (4 per cent) than with their fathers (9 per cent). Fewer people speak English with members of older generations than with members of younger generaiions. Twelve per cent speak English with their sisters and 16 per cent with brothers. Twenty-six per cent speak English with their children. Of these 23 per cent of the mothers speak

English with their children, as compared with 28 per cent of the fathers. The difference in addressing people in English is 4-5 per cent greater for males than for females within each generation. The use of English increases with each generation. This suggests social change rather than anything about interfamilial relationships.

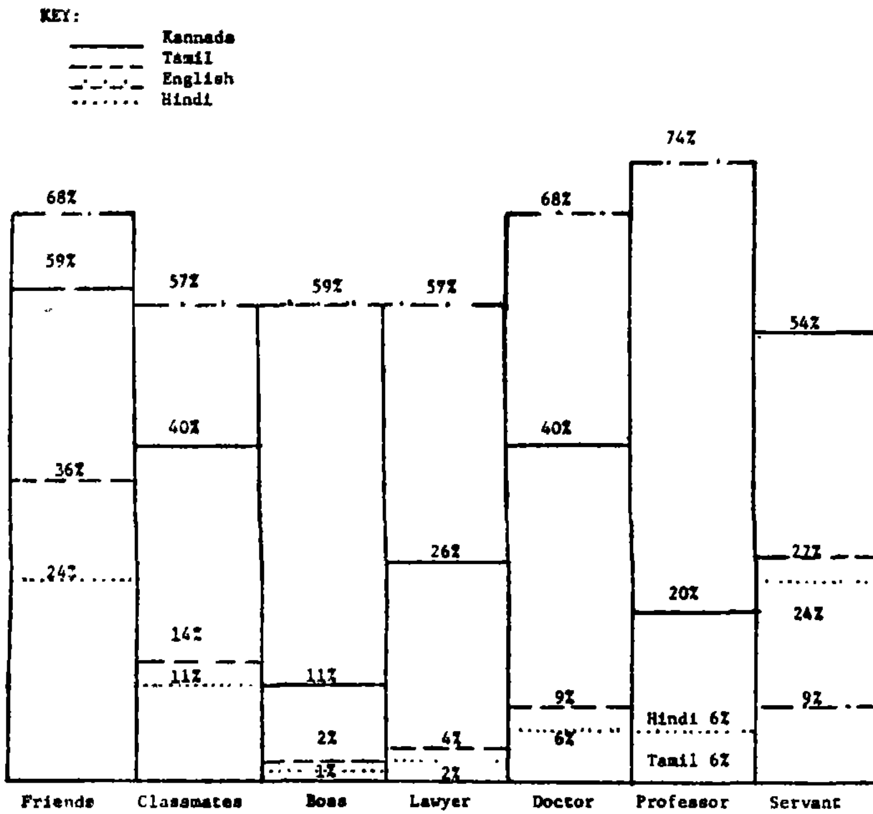


Chart D: Comparison of Languages Spoken with those of Different Solidary

Although language use with friends has been categorised as an informal relationship of great solidary, the language pattern differs markedly from that of the family. With friends 19 per cent are monolingual, 54 per cent bilingual, and 27 per cent speak more than two languages. Seventy-six per cent of the sample is monolingual within the family with 20 per cent bilingual and 4 per cent speaking more than two languages. A more direct comparison may be made with siblings and friends. Over 80 per cent of the sample considered the sibling relationship a monolingual one; over 80 per cent considered the friend relationship multilingual. Within the family one is basically monolingual; with friends, multilingual. Fully 68 per cent use English with friends, 59 per cent Kannada, 36 per cent Tamil, and 25 per cent

Hindi. All these percentages are significantly higher than the number of mother tongue speakers in each category. English and Kannada are the most widely used languages among friends (Chart D). Factors accounting for this may be that friends come from different language groups and probably from a common educational background, so that the languages used are known to all and can be used to signal cohesiveness and their educational level. The solidary among friends may be signalled by free switching in language use contrasting with family solidary which is signalled by the use of the mother tongue, frequently a dialect specific to the social group.

For the category which involves social distance from those of equal or superior status, over 50 per cent use English as the primary language. In contrast, only 9 per cent speak English to servants. Non-solidary and superiority are correlated with an increase in multilingualism. For 87 per cent of the sample, conversation with one's boss is a monolingual event. This drops to 77 per cent for one's professor to 75 per cent for one's lawyer to 73 per cent for one's doctor. Professors and bosses have the power of social hierarchy which is shown by the predominant multilingualism and the importance of English. One's doctor and one's lawyer do not have the same power, as a progressive increase in speaking Kannada from boss to professor to lawyer to doctor indicates.[4] If at all possible in dealing with these superior categories, only Kannada and English are used. Kannada is widely used for doctors for whom communication is essential for appropriate treatment. The doctor belongs to a formal category which everyone uses; however, the housewife segment of the sample has no boss. Moreover, they are not likely to consult lawyers. Having to communicate with a professor is quite possible as many have attended college.

"Classmates" is a category of equal status but not necessarily solidary. The comparison with friends is striking. Only 19 per cent of the friends are monolingual whereas 58 per cent of the classmates use only one language with each other. The language used is most likely to be English, but 40 per cent responded that they speak Kannada with each other.

Roughly three-fourths of the interactions with servants are monolingual with the primary language being Kannada (54 per cent), the second language Tamil (27 per cent) and the third language Hindi (24 per cent).

Taking one's boss and one's professor as being socially distant

4. One doctor volunteered that his patients use as much English as possible in his office. No matter how limited their comprehension of English, they try to make English the language of interaction. The doctor tries to accomodate himself to the language the patient knows best.

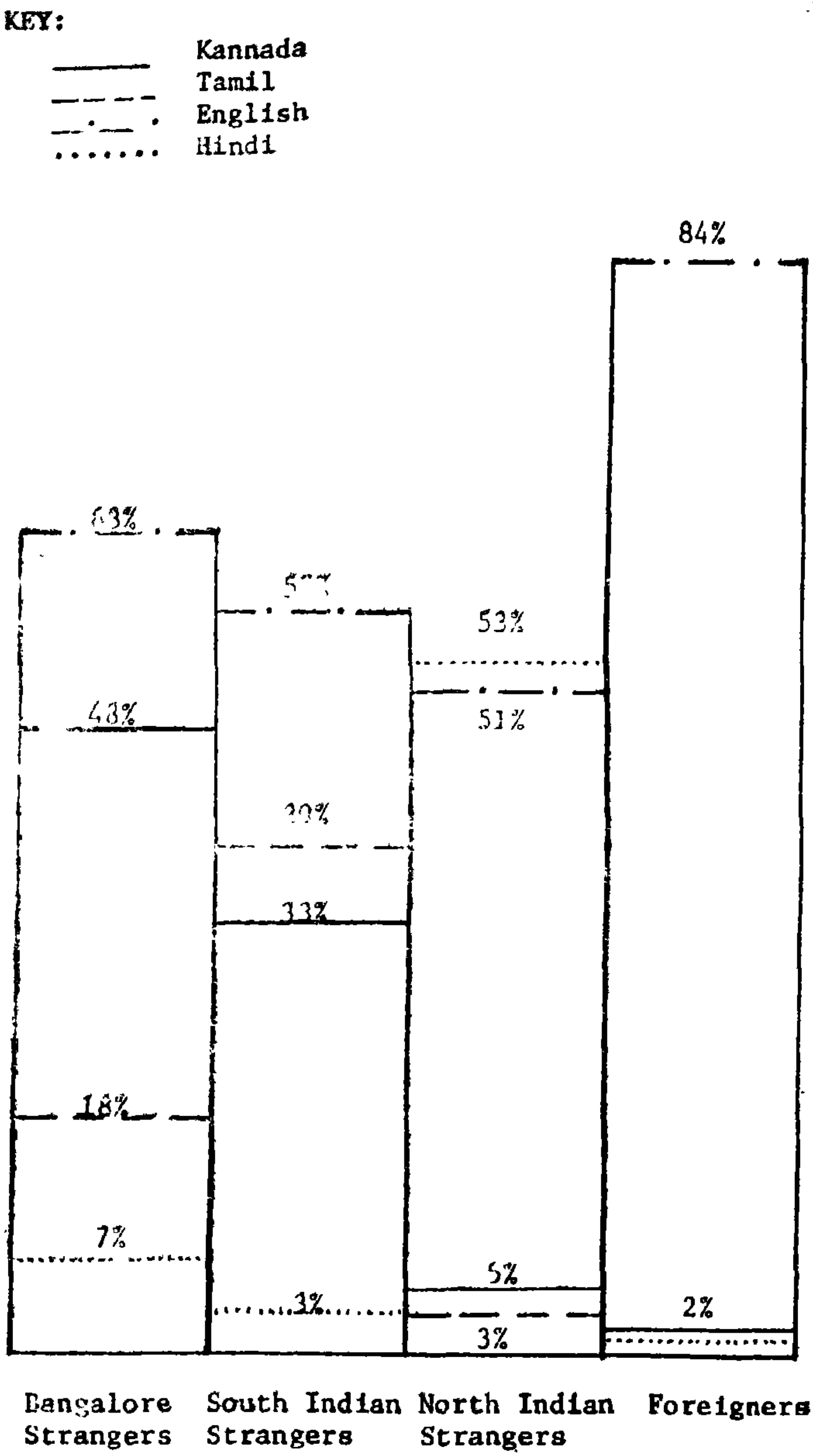


Chart E: Languages Spoken with Strangers

and people regarded with respect, English is clearly the language of choice. With equals such as friends and classmates, English predominates but Kannada becomes *more significant*. With those of lower social status the regional language Kannada is the most important language (Chart XVIII).

Strangers represent a category which is formal but of undetermined status. There is no basis for solidary. Sixty-three per cent of the sample would address a southern stranger in one language (Chart E); 66 per cent, a Bangalore stranger; 76 per cent, a northerner in one language. The sense of appropriateness of English for all these categories is high with the lowest being for North Indians (51 per cent) and the highest for addressing foreigners (84 per cent) who are assumed not to know an Indian language. The percentage speaking Tamil or Kannada is high for both Bangalore strangers and South Indians, but the numbers are reversed for the two categories, indicating that Kannada is perceived as the language of Bangalore; and Tamil as the language of South Indians. Other Dravidian languages, taken together, are not used significantly in interactions with Bangalore or southern strangers. Hindi and English are definitely perceived as the languages for addressing northern Indians. This may be the only category outside of movies and songs in which Hindi is the primary language.

In informal situations there is no truly dominant language. At home and in discussing movies 30 per cent speak Kannada. This is in the same range of Kannada use with solidary people. Indeed, language use at home and with relatives is roughly identical. In discussing movies, language usage falls between that among solidary relatives and that among solidary friends. In contrast, the situation of joking parallels that of friends. Dreaming[5] is a special category, as a person has to recall in what language he dreamed.

> ...'choice' is likely to be determined by the factors of prestige and loyalty to the language. It is customary and prestigious for an English educated person to say or believe that he even thinks and dreams in English; ... 'dream' is probably more an issue of one's loyalty to a language rather than mere prestige.

Formal situations where there is no solidary are predominantly English-speaking. Over 55 per cent in every category but shopping show the widespread use of English. Kannada is invariably the

5. This qnestion was taken from a questionnaire developed by Prabodh B. Pandit, "Language and Identity: The Punjabi Language in Delhi," from an unpublished manuscript to appear in *International Journal of Sociology of Language*, 29.

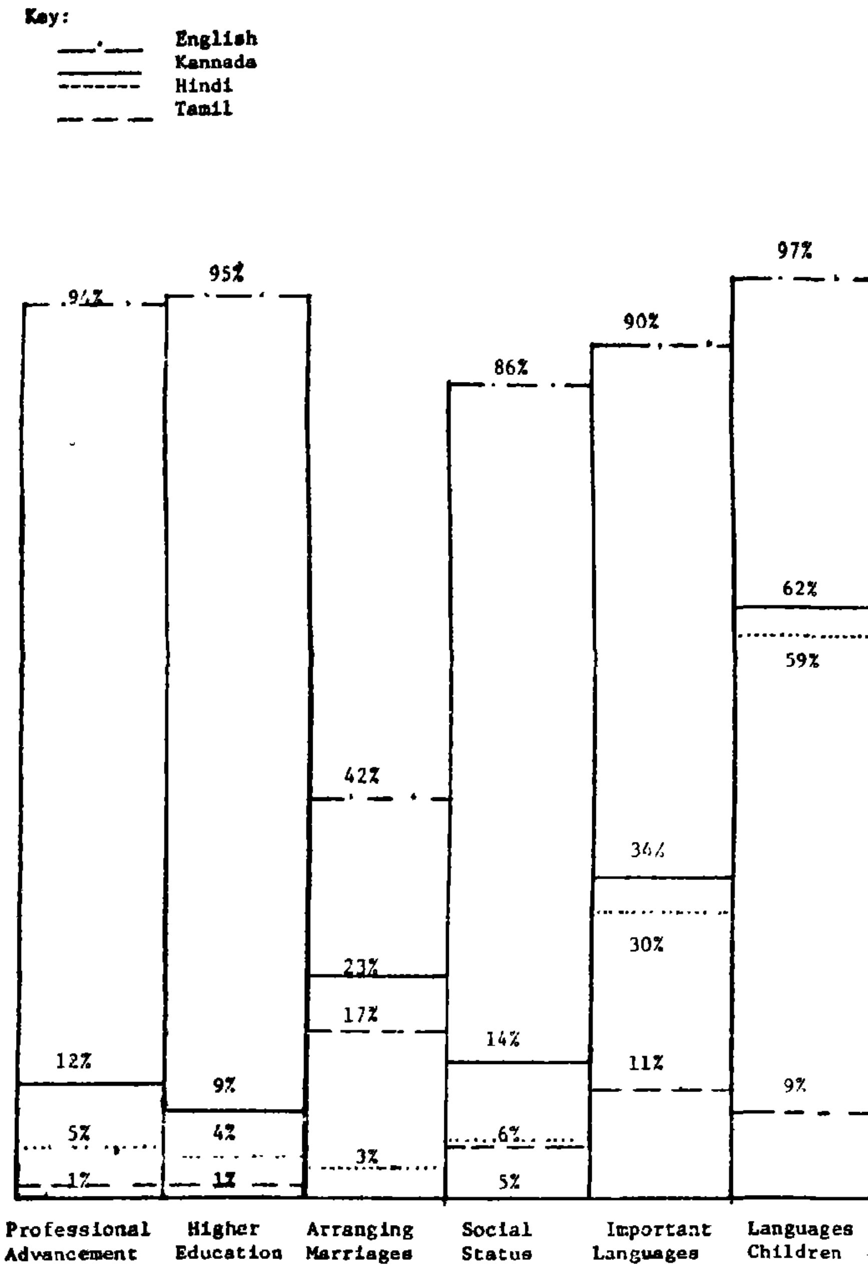


Chart F: Languages Regarded as Useful

second language. The most widely used occurrence of Kannada in formal situations is in the post office (42 per cent). Hindi is most widely used in job applications, but it is not so important for the interview itself. Shopping is clearly qualitatively different from other formal categories. Here Kannada is the most frequently used language. Although all four languages—Kannada, English, Hindi, and Tamil—are frequently used while shopping, the interpretation that lower levels of speech are appropriate when dealing with commercial matters explains the predominant use of Kannada. At the same time that lower levels are permissible, there is greater flexibility of language use in commercial matters.

Ideas of language value

To discover which languages are perceived as important and why, people were asked what language(s) are important for one's professional advancement, higher education, arranging a good marriage, and social status. In addition, they were asked what language(s) are important to know and why and what languages their children are learning.

With the exception of maximising marriage opportunities and gaining social status, English is almost unanimously chosen as the language of value. No other language ranks above 15 per cent for value in professional advancement or higher education (Chart XX and Chart F). Seven per cent think language has nothing to do with social status. In arranging marriages, English is still the most important language; however, Kannada and Tamil are also important. As this percentage is not above that of mother tongue, we assume people prefer a spouse who speaks the same native language. Many, roughly half, also want a bride or groom who can speak English.

The major reasons being given for a language being important for one's career are widespread usage (32 per cent) and being a world language (22 per cent). The reasons given for a language being important, in general, are world language (46 per cent), regional language (20 per cent), mother tongue (32 per cent), widespread usage (32 per cent), and national language (28 per cent). (Chart XXI.)

Parents have considerable control over the languages their children learn. Many parents send their children to private English-medium schools; other use Kannada medium schools; still others send their children to schools using the mother tongue as a medium. As a result, the languages parents have their children learn reflect attitudes towards language. English, Kannada, and Hindi in this order are the languages most children learn. This priority to world language, regional language and national language as a child's basic linguistic

skills suggests the parents' perception of a child's needs for a successful future.

Conclusion

The basic multilingual pattern in our Bangalore sample is the use of one language, the native language, at home and the use of English outside the home. The greater the formality and the social distance, the greater the tendency to use English to the exclusion of other languages. At a job interview, the bank, and at school, to cite some examples, English is the predominant language. In cases of greater informality and solidary, such as among friends, there is a tendency to use both English and Kannada. In situations where there is no solidary and the respect dimension is not dominant, such as shopping, Kannada is the language of choice. Within the family, a group characterised by great solidary, the native language is the most widely used language. This supports the view that English is definitely the most valued language for professional advancement, higher education, and social status. The value of English for family affairs, such as arranging a favourable marriage, is not as important and the value of other languages is recognised.

Parallel to the use of multiple terms of address with solidary[6] is the use of multiple languages. Among friends, the situation, mood of the moment and people in the group all interact to determine language use. With familiarity and solidary is a flexibility in which language use serves to reveal the multi-faceted dimensions of a relationship. The quadrilingual nature of Bangalore provides a basis for such variation there.

World language and mother tongue are the two most important languages in Bangalore. The regional and national languages command similar loyalties as to importance and to instruction for children. The difference in use, however, compared with allegiance is striking. While 61 per cent claim a speaking knowledge of Hindi and 47 per cent a reading knowledge, its use is restricted to the world of entertainment and discussing entertainment, to servants, and solidary relationships. The regional language has a higher profile, but mother tongue is regarded as more important than either national or regional language.

---

6. R. Brown and M. Ford, "Address in American English," reprinted in Dell Hymes (ed.), *Language in Culture and Society* (New York: Harper & Row, 1964), pp. 234-244.

Chart I: Characteristics of the Bangalore Sample

Occupation		*Age*	
Traditional Caste	4%	18-25	6%
Government jobs	8	26-30	14
Business	23	31-35	17
Professional	30	36-40	15
Traditional Women	28	41-45	12
Factory Work	2	46-50	14
		51-60	14
		61-82	8

Education		*Sex*	
No formal education	1%	Male	66%
Less than high school	20	Female	34
High School	21		
Pre-University year	5		
Diploma	5		
Bachelor's degree	42		
Master's degree	5		

Economic Classification	
Wealthy (over rupees 2000 monthly)	16%
Upper Middle (rupees 1000-2000)	50
Lower Middle (rupees 500-1000)	28
Poor (under rupees 500 per month)	6

Religion	
Hindu	86%
Brahmin	57
Kshatriya	6
Lingayat	2
Vaisya	10
Sudra	23
Harijan	2
Muslim	5
Christian	8

Percentages refer to the total data with the exception of the percentages referring to Hindu which have the total Hindu population as a base.

Chart II: Residence Patterns

Hometown

Native of Bangalore	46%
Non-native of Bangalore	54
Mean distance of hometown	518 miles
Median distance of hometown	281 miles
Mode distance of hometown	200 miles

Years resident in Bangalore

1 year	9%
2-5 years	16
6-10 years	12
11-15 years	9
16-20 years	9
21-25 years	7
26-30 years	9
31-35 years	7
36-40 years	7
41-45 years	5
45 + years	10

Types of household

Joint family	15%
Nuclear family	59
Patrilineally extended	15
Matrilineally extended	11

Distance of Bangalore from hometown

0-100 miles	18%
101-200 miles	19
201-300 miles	20
301-400 miles	16
More than 400 miles	27

Home State

Andhra Pradesh	5%
Kerala	7
Karnataka	61
Maharashtra	5
Tamilnad	11
Miscellaneous North Indian states	10
Other nations	1

Nuclear family refers to husband, wife and children of the couple; patrilineally extended refers to a father's father or father's mother present in addition to the nuclear family; joint family refers to one or more married male siblings and his wife and children or of the father and his wife and children; matrilineally extended refers to relatives on the wife's side.

Chart III: Patterns of Worship

Frequency of Worship

Once a day	72%
Twice a day	19
Irregularly	1
Not worship	8

Person Performing Worship

Male member of household	36%
Female member of household	49
Wife	23%
Anyone in the household	15

Chart IV: Number of Languages Spoken

One language	2%	Mean: Four languages
Two languages	10	Median: Four languages
Three languages	27	Mode: Four languages
Four languages	30	
Five languages	22	
Six languages	7	
Seven languages	1	
Eight languages	1	

Chart V: Languages Spoken

Language	I	II	III	IV	V	VI	Total
English	18%	24%	23%	15%	6%	1%	87%
Kannada	26	27	11	7	3	1	75
Tamil	19	11	16	11	5	1	63
Hindi	6	18	17	13	6	1	61
Telugu	12	10	7	5	4	1	39
Urdu	3	2	3	5	2	1	16
Malayalam	4	2	2	2	2	0	12
Bengali	2	1	2	1	1	0	7
Marathi	3	1	2	1	0	0	7
Punjabi	1	0	2	1	0	0	4
Tulu	2	0	0	1	1	0	4
Konkani	1	1	1	0	0	0	3
Gujarati	1	1	1	0	0	0	3
Sindhi	2	0	1	0	0	0	3
Marwari	0	0	1	0	0	0	1
Sanskrit	0	0	0	0	1	0	1

The order represents the order in which the laguages were listed.

Chart VI: Mother Tongue

Kanada	26%	Other Indo-Aryan Languages	25
Tamil	22	Urdu	4%
Other Dravidian Languages	26	Marathi	4
Telegu	16%	Sindhi	4
Malayalam	7	Konkani	3
Tulu	3	Bengali	3
English	1	Gujarati	2
Hindi	2	Punjabi	2
		Marwari	1

Chart VII: Number of Languages Read

One Language	10%	Mean: three languages
Two languages	34	Median: three languages
Three languages	36	Mode: three languages
Four languages	14	
Five languages	6	
Six languages	1	
Seven languages	1	

Chart VIII: Reading in Various Languages (per cent)

Language	I	II	III	IV	V	Total
English	25	36	20	4	1	86
Kannada	19	18	6	2	1	56
Hindi	7	18	15	6	1	47
Tamil	15	6	5	2	1	29
Other Dravidian Languages	13	7	4	3	2	29
Telugu	9	5	3	2	1	20
Malayalam	4	2	1	1	1	9
Other Indo-Aryan Languages	12	3	6	3	1	25
Urdu	3	2	1	0	0	6
Marathi	3	1	1	1	0	6
Sanskrit	0	0	1	2	1	4
Bengali	2	0	1	0	0	3
Gujarati	1	0	1	0	0	2
Punjabi	1	0	0	0	0	1
Sindhi	2	0	1	0	0	3

Chart IX: Virtually Monolingual Interactions

Type of Interaction	*Per cent Monolingual*	*Per cent Multilingual*	*Per cent Bilingual*
Father's Parents	97	3	3
Mother's Parents	97	3	3
Uncle	96	4	4
Aunt	96	4	4
Mother	95	5	5
In-laws	94	6	6
Father	91	9	9

Chart X: Limited Multilingual Interactions

Type of Interaction	*Per cent Monolingual*	*Per cent Multingual*	*Per cent Bilingual*
Job Application	89	11	11
Boss	87	13	13
Sister	87	13	13
Relaxation Reading	87	13	13
Singing Songs	86	14	14
Dreaming	84	16	16
Language Imp. for Career	84	16	13
Brother	83	17	17
At Home	82	18	18
Reporting Theft	80	20	20

Chart XI: Predominantly Multilingual Interactions

Type of Interaction	*Per cent Monolingual*	*Per cent Multilingual*	*Per cent Bilingual*
Professor	77	23	23
Bank	76	24	24
Lawyer	75	25	25
Reading Newspaper	75	25	25
Family, Relatives	76	24	24
Own children	75	25	25
Playing with children	76	24	24
Prayer	77	23	23
Post Office	73	27	27
Northern Visitors	76	24	24
Doctor	73	27	24
Maid	76	24	24
Discussing Politics	72	28	28
Cursing	71	29	29
Social Status	71	29	29
Arguing	68	32	32
Discussing Movies	68	32	32
At work	68	32	16
At school	67	33	31
Bangalore Strangers	66	34	27
Reading Books	67	33	29
Reading Magazines	66	34	34
Getting Good Spouse	65	35	33
Listening to Pol. Speeches	63	37	31
Discuss Work	62	38	27
Southern Strangers	63	37	25
Telephone	61	39	28
Marriage Ceremony	60	40	31

Chart XII: Virtually Multilingual Interactions

Type of Interaction	*Per cent Monolingual*	*Per cent Multilingual*	*Per cent Bilingual*
Classmates	58	42	36
Shopping	58	42	30
Joking	55	45	11
Languages Imp to know	41	59	35
Listening to Songs	35	65	31
Movies	27	73	25
Friends	19	81	54
Languages Children Taught	10	90	44

Chart XIII: Languages in which Read Newspapers

Language	I	II	Total
English	76%	8%	84%
Tamil	3	1	4
Kannada	17	11	28
Other Dravidian Languages	1	3	4
Other Indo-Aryan Languages	2	2	4

Chart XIV: Language in which Read Magazines

Language	I	II	Total*
English	59%	9%	68%
Tamil	7	6	13
Kannada	22	11	33
Hindi	1	3	5
Other Dravidian Languages	3	4	7
Other Indo-Aryan Languages	1	2	3

*In several cases a third language was listed. This explains the discrepancy between the total and the sum total of I and II.

Chart XV: Language in which Read Books

Language	I	II	Total*
English	50%	6%	57%
Tamil	6	5	11
Kannada	16	9	25
Hindi	3	2	6
Other Dravidian Languages	2	3	6
Other Indo-Aryan Languages	4	1	5

In several cases a third language was listed. This Explains the discrepancy between the total and the sum total of I and II.

Chart XVI: Language of Last Book Read

Language	*Percentage*
English	32%
Kannada	10
Tamil	4
Hindi	3
Other Indo-Aryan Languages	2
Other Dravidian Languages	2

Chart XVII: Contrast of Passive and Active Use of Language

	Listening to Political Speech			*Discuss Political Speeches*		
Language	I	II	Total	I	II	Total
Kannada	25%	6%	32%	23%	4%	27%
Tamil	5	2	7	5	2	7
Hindi	2	4	8	1	2	4
English	31	10	42	27	8	35
Other Indo-Aryan Languages	1	0	1	1	0	1
Other Dravidian Languages	0	0	0	1	1	2

	Attend Movies				*Discuss Movies*		
Language	I	II	III	Total	I	II	Total
Kannada	32%	27%	7%	49%	25%	5%	30%
Tamil	12	8	5	28	14	4	18
Hindi	31	36	10	79	9	6	15
English	24	30	10	67	21	9	30
Other Indo-Aryan Languages	5	1	1	7	11	2	13
Other Dravidian Languages	3	7	4	17	12	3	15

	Listening to Songs				*Singing Songs*	
Language	I	II	III	Total	I	Total
Kannada	31%	11%	5%	50%	26%	30%
Tamil	13	6	4	24	12	15
Hindi	30	24	8	62	22	32
English	13	9	2	24	9	10
Other Indo-Aryan Languages	3	4	0	7	3	3
Other Dravidian Languages	8	8	4	23	2	10

The percentages are listed in the order of response on the questionnaire. If more than 15 per cent provided a further language the list was provided separately rather than just giving the total.

Chart XVIII: Languages Spoken with People in Different Status Categories

Language	Boss I	Boss II	Boss Total	Professor I	Professor II	Professor Total
Kannada	6%	5%	11%	14%	6%	20%
Tamil	2	0	2	5	1	6
Hindi	1	1	2	3	3	6
English	57	2	59	64	10	74
Other Indo-Aryan Languages	1	0	1	2	0	2
Other Dravidian Languages	1	0	1	2	0	2

Language	Classmates I	Classmates II	Classmates III	Classmates Total	Friends I	Friends II	Friends III	Friends Total
Kannada	26%	13%	1%	40%	32%	18%	6%	59%
Tamil	9	4	1	14	3	12	7	36
Hindi	4	6	1	11	4	10	8	25
English	42	12	1	57	29	28	10	68
Other Indo-Aryan Languages	6	3	0	9	4	5	0	11
Other Dravidian Languages	4	1	0	5	10	8	5	24

Language	Servant I	Servant II	Total
Kannada	47%	7%	54%
Tamil	19	8	27
Hindi	19	5	24
English	8	1	9
Other Indo-Aryan Languages	1	0	1
Other Dravidian Languages	3	2	5

The order of those speaking a particular language reflects the order of listing. Separate listings have been given here when the response in a given category, i.e. first language, second language, is more than 15 per cent.

Chart XIX: *Situations and People* of Solidary and Non-solidary Relationship

	*Solidary**	*Not Solidary**
Superior*	Father Mother Father's parents Mother's parents In-laws	Boss Doctor Lawyer Professor
Equal	Brother Sister Friends	Classmates
Inferior	Children	Servant
Unmarked	Family in general	Bangalore strangers South Indian strangers North Indian strangers Foreigners
Situations	Discuss work Prayer Dreaming Joking Playing with children At home Discuss movies	At work Job application Job interview Telephone conversation At bank At post office Shopping

*The terms for degree of intimacy as solidary, not solidary and for status levels (superior, equal, inferior) are taken from Brown and Gilman, *op. cit.*

Chart XX. Languages Viewed as Most Useful in Given Goals

Language	*Professional Advancement* I	Total	*Higher Education* I	Total	*Arranging Marriage* I	II	Total
Kannada	4%	12%	3%	9%	16%	6%	23%
Tamil	1	1	1	1	12	5	17
Hindi	1	5	1	4	0	2	3
English	90	94	93	95	28	13	42
Other Indo-Aryan Languages	1	1	1	1	11	0	13
Other Dravidian Languages	1	1	0	0	16	1	19

Language	*Social status* I	II	Total	*Important languages* I	II	III	Total	*Languages Children Learning* I	II	III	IV	Total
Kannada	5%	9%	14%	18%	9%	5%	34%	13%	29%	18%	2%	62%
Tamil	2	3	5	5	3	2	11	3	3	2	1	9
Hindi	1	5	6	5	18	6	30	4	35	18	2	59
English	80	6	86	64	23	3	90	75	19	2	1	97
Other Indo-Aryan Languages	2	2	4	3	2	2	7	3	2	3	1	9
Other Dravidian Languages	1	2	3	3	3	1	7	0	1	1	0	2

The languages are listed in order of response. The total refers to all the responses, as those categories to which fewer than 15 per cent responded are not listed separately.

Chart XXI: Reasons a Language is Important

Reason Language Important	I	II	III	Total
World language	32%	12%	2%	48%
Widely used	23	8	1	32
Mother tongue	16	10	5	31
National language	6	15	6	27
Regional language	10	6	4	20

The order in which those who have more than one reason is preserved in the chart.

The Urban Poor in Asia: A Note on Housing Policy

William J. Keyes

The conventional approach to housing, largely because of its technocratic and middle-class bias, has been totally inadequate to cope with the problem of low cost housing for the urban poor. This Note discusses the elements that should be integrated in an alternative housing policy that would foster the creation of new housing stock for the urban poor. Such a policy would recognise the immense resourcefulness of the poor and their capacity to provide their own housing. Looking on the urban poor as the greatest untapped economic resource for housing solutions, a functional housing policy would provide government cooperation and encouragement for self-help housing by the poor.

The problem with "the housing problem" is that people bring to the problem widely divergent attitudes to what housing is, how it should be built, and by whom.

Two years ago, the Asian Institute of Technology in Bangkok sponsored a seminar on "Low Income Housing: Technology and Policy." It is difficult to realise how a single topic—housing—could bring together such a diversity of human types and professional interests. Managers of projects mingled with a variety of engineers and architects. Government housing ministers seemed anxious to offer slide presentations of their agencies' accomplishments. West German businessmen were looking for Asian clients for their products or construction systems. Sociologists showed a depth of direct experience with the poor. There were some religious, some students and several representatives of international funding agencies.

One afternoon the programme provided for a field trip to central Bangkok. The delegates were invited to stroll through one of the city's oldest and largest slum cammunities and then, as a group, to reflect on their experience. Initial reactors' comments were generally

---

The author is currently engaged in a low-cost housing project, "Freedom to Build," near Manila, Philippines.

favourable. Despite the stagnant water below the board-walk alleys, the homes were generally clean: Many families integrated residence with cottage industry employment. One sociologist praised the integration of work with family life: children played within sight and hearing of parents at work in the houses. Handloom weaving was much in evidence. Other comments referred to the convenient location of the slum—close to the heart of the city. The presence of people's organisations was also observed.

At this point, a funding agency delegate, a New Zealander, expressed his absolute astonishment at the remarks of the other delegates and asked quite bluntly if they were serious in their praise of the area. His image of the place was the stench and the crowding and the flimsy houses, and it was his opinion that the best thing that could be done for those wretched people was to burn the whole place down and take the people to a place where they could have a chance to live decent human lives. At this intervention, the discussion virtually exploded. Tempers and voices rose and the delegates split into two polarised camps each accusing the other of lack of real concern for the poor. Despite the heat, it was a fruitful dialogue with implications going far beyond the question of housing alone.

Conventional housing

People with a certain mind-set about a problem sometimes are reluctant to perceive and accept solutions to the problem outside their own framework of reference. This is true of housing. The dominant presumption about housing favours "conventional housing" which could also be defined as legal housing. It is designed by an architect, approved for construction by a proper government agency, built by a contractor, financed by a bank and then turned over to a user whose primary relationship to the process is to pay for the product at some level of monthly rental or amortization. Probably most of the readers of this article live in such housing and might not be immediately aware that a much wider understanding is possible. In point of fact, conventional housing represents only one approach to housing—and a narrow one, at that. A town planner in Bangkok researched the housing solutions of low income families in that city and was able to list almost fifty different approaches, only a percentage of which could be called conventional housing.

When housing is defined in the conventional way, the housing problem of developing countries simply can not be solved. The sheer quantity of need, the situation of national poverty, the imbalance of income, the widening gap between housing costs and capacity to pay —all these imply that developing countries are faced with an increas-

ing percentage of their people who will never enjoy the comfort of conventional housing in the life time of anyone now worrying or writing about the problem. The problem of housing with its linkages into almost every aspect of a nation's complex economic-political life cannot be solved independently of overall social reform. Once the reality of this assertion, namely that we are faced with an insoluble problem, could be accepted, then we can begin the less glamorous but perhaps more realistic process of adjusting to the reality of permanent housing scarcity and adopt a strategy accordingly.

Untapped economic resource

Several years ago, The United Nations Centre for Housing, Building and Planning began to focus attention on the housing accomplishment of Third World squatters as a possible source of housing solutions. While some look on squatters as violators of law and creators of urban nuisance, the U.N. thought that a more positive evaluation was also possible. Around the world, governments and the private sector throw up their hands at the enormity of the housing problem or present solutions with a smattering of highly subsidised prestige projects for a handful of beneficiaries. Yet, these creative and imaginative people, the squatters, have built more housing stock than the efforts of government and the private sector combined. Usually operating illegally, they have built without professional assistance, at very low cost, without finance and, most important, they have built houses that enjoy a high degree of owner satisfaction.

Perhaps the greatest untapped economic resource for housing solutions is the recognition of the capacity of the poor to house themselves. Squatters, around the world, by a sort of reverse technology transfer can teach government planners that the key to the housing problem lies outside the environment of conventional housing. It can be found in government cooperation with and encouragement of the ability of the poor to house themselves.

It is a practical expedient. Proponents of the conventional approach do not consciously perceive the injustice implied in encouraging the majority of the world's urban population to be patient for a decade, hopefully, or maybe longer while the nation busies itself with development plans in which, supposedly, the pie will get bigger and everyone will share it. It is an empty dream and a false hope. The fruit of "development" is a widening gap between housing costs and urban wages. Population growth alone, aside from other factors, far outpaces the annual creation of new housing stock, especially for the poor. In the meanwhile, agencies pursue the futile search for technological breakthroughs, while the roots of the problem lie elsewhere. The costs of conventional housing are such that about three-fourths of Asia's

urban masses are priced out of the market. No government can launch itself on a programme of heavily subsidising the majority of its population—except, perhaps, in the oil-rich Middle East. Nor is it readily admitted that conventional housing is expensive partly because it is supportive of the economic imbalance between the urban advantaged and urban poor. Even when the government spends for low income housing the money goes towards payments of artifically overpriced land, exaggerated professional fees, high-priced contractors and, frequently, it is absorbed by a nebulous network of outside-of-salary remuneration for government employees.

House building process

To be meaningful, housing *for* the poor should also be housing *by* the poor. But housing by the poor is substantially different to the approach presumed by practitioners of the conventional approach. In the Philippines, in 1975, research was conducted among Manila squatters to assess their own house building strategies. The research revealed a different understanding of what housing is and how it related to the overall life situation of the builder-user.

Firstly, low income housing is not financed at all. It is not only that the poor are poor credit risks and do not have the collateral that financing institutions require. It is more that the poor have little comprehension of and desire for long-term obligations. Employment is too irregular. The future is too uncertain to risk forfeiture of the house if they fail to meet regular payments. Instead, they build their homes in stages as opportunity provides or necessity dictates, sometimes with small savings, or sometimes with funds borrowed on a personal and informal basis.

Secondly, the poor can build very inexpensive housing with total costs equalling a small fraction of what professional developers call "low-cost." There are no professional fees; no contractor. The owner takes an active role in the house building processes, not only as labourer, but also as architect, planner, builder and the organiser of a work force that he must attract, supervise and reward. He makes extensive use, too, of second-hand building materials that he either buys or scavenges or receives as gifts.

Thirdly, the house building process is quite different. For the poor, it is slow and integrated into other human values. The conventional model presumes a quick construction period of several months, at most, before the house is turned over to a buyer while the contractor repeats the process elsewhere. For the poor, the house building process goes on for years. In fact, the house is always being built. It is a constant but slow process of growth, change or improvement as

opportunity arises or necessity dictates. The house improvement process responds, too, to other family values. For example, improvement can be postponed in favour of a decision to spend for education —something no architect can accomodate to. Conventional housing approaches perceive all housing in physical and quantitative terms but the poor perceive housing as it relates, also, to access to employment, economic capacity and present and future family values—these, in addition to what the house is made of and what it looks like.

All this, probably, is obvious. But what is less obvious is that the fruit of this self-help, owner-initiated housing activity need not necessarily create slums. Slums are not the product of the creative energies of the poor to provide their own housing. Slums, rather, are the result of urban society's failure to coordinate with these energies and accomodate to the realities of urban poverty.

Freedom to Build

More than two decade ago, a new concept for low income housing emerged called "sites and services." Many countries have adopted the concept and use it widely so that, today, a substantial percentage of their urban population lives in "site and services" projects. Some countries have dabbled with the concept but somehow seem reluctant to let it "take-off" and use it extensively. Other countries have misunderstood the concept and, in applying it, have ended up improverishing people in out of the way or poorly designed projects.

Simply, "sites and services" takes recognition of the enormity of national housing needs, the dynamic growth of this need and government's own limited capacity to cope, if conventional housing is the presumed solution. It further recognises that people have the capacity to provide their own housing if given a supportive and encouraging environment. "Sites and services" implies that the government acquires and develops land with adequate roads, drainage and water networks. Schools, a market and a health clinic are also provided. Probably the project should be near the urban core or, second-best, subsidised transportation is provided. For housing, there is minimum expenditure, usually in core housing but the housing aspirations of the people can be encouraged by access to low priced materials, technical assistance and a minimal emphasis on legal requirements and standards. Most important is security of tenure, a guarantee that the site is permanent; that there will be no further relocation once improvements are made and neighbouring land values rise. The approach also places emphasis on the need of strong people's organisations, capable of generating self-help enthusiasm and resolving the numerous practical and social problems of the area.

In the Philippines, our "Freedom to Build" project has been linked into a government "sites and services" project for almost three years now. The goal of the project is not to build houses at all, but to support and encourage the people's efforts to create their own. Freedom to Build offers low-priced materials, technical assistance, tool loans and also encourages neighbourhood savings clubs. In its short history, the project has proved very succesful. Only poor people were allowed access to the government project, people living below the poverty line. Yet, despite their poverty, these people have responded to the opportunity that the site itself and Freedom to Build offer. The investment in housing stock has risen dramatically in the area. From the original shanty housing, solid and attractive permanent homes are beginning to emerge.

The project is proving the resourcefulness of the poor and the capacity of the poor to provide their own housing. It is *their* accomplishment. While this approach may not be applicable for all income levels, it is a pragmatic solution for the poor who, after all, are the majority in Asia and by whom the housing shortage is felt most acutely. Rather than insist on conventional and expensive solutions, technocrats should attune themselves more to the voices of the poor. These are not whimpering voices, pleading for dole, but the voices of strong and creative people who ask society for the right to take care of themselves.

Book Reviews

SOUTH INDIAN FACTORY WORKERS. Their Life and Their World. Mark Holmstrom. New Delhi: Allied Publishers, 1978. Pp. x+158. Rs 25. THE WORKER AND HIS UNION. A Study in South India. E.A, Ramaswamy. Allied Publishers, 1977. Pp. x+204. Rs 30

Both these studies in social anthropology are focused on analysing the attitudes of the South Indian worker towards his industrial environment, within the confines of his factory and his trade union. Holmstrom's study is by far the more readable of the two by reason of the broader dimensions of its scope, its deft analysis. and its pithy style. Ramaswamy's account on the contrary, possibly because of its research methodology, tends to be much more diffuse, despite the fact that his subject has a narrower frame. However both studies throw a lot of light on workers' attitudes and contradict many cliches and generalisations that are often made by the blind application of Western and Marxian categories to an understanding of the Indian worker and his reactions to his factory and his union.

Holmstrom's analysis is restricted to workers in Bangalore and based on personal interviews with sampled employees working in four factories in the city, two in the public and two in the private sector. It is certainly interesting to learn that these workers are not necessarily alienated from their jobs, are not conscious of belonging to a proletarian homogeneous class of workers, often regard the 'workers' as a middle class group. and their factory employment as a safe haven of security if not of opportunity for more satisfying careers with higher emoluments. Fortunately the author is aware of the biassed opinions passed on to him by the workers he interviewed, who well knew that he was a foreigner and tried to provide him with the answers that would please him. But in his conclusions he has been able to discount for such biasses.

One could agree with him that the travails of migration did not affect the fortunate factory workers, some of whom came from villages nearby, while the majority were born and brought up in Bangalore. But this perception may not be generalised to apply to all urban workers in the unorganised sector, many of whom have to suffer all the lonesomeness and anonymity of the city, especially if they have come from far-off villages. Also should a clear distinction not be made in the use of the term 'organised,' since in India it usually refers to that section of the urban workers that has been organised by the unions, while those that are unorganised are in fact greatly exploited. However even then such abandoned and anonymous workers do receive incomes that considerably outstrip what they previously could expect to gain

in the villages. This difference alone is enough to support the hypothesis of a dual economy.

Ramaswamy's book is meant to provide the contours of trade union members' perceptions of their trade union and their relationships with union leadership. If one accepts the type of observational research used by the author as a valid and reliable source of scientific knowledge, this portrayal of a diversity of attitudes and their mutual influence on each other yields some interesting results. One misses however the incisiveness and precision of more formal types of research methodology which could have been used to confirm intuitive inductions from the subjects' speech and behaviour. For instance does one's criticism of one's union and the wild gossip that often circulates within the factory regarding both management and the union provide evidence enough to question the members' loyalty to their union?

Obviously the union, as A. Douglas had noted years ago, is a political institution in the sense that it has leaders and rank-and-file and, like any social organisation, is subject to the internal and external power struggles and the pressures that build up when men are thrown together in a confined area and are compelled to work together. Naturally the purely economic interests of the workers may not always come to occupy first place in the aims of the trade union leaders, who may have to play a difficult diplomatic game for the survival of the union. This appears to be a common pattern in all countries where industrialisation has caught on.

In his concluding chapter, the author raises a number of controversial issues, such as trade union rivalry in the same factory because of diverse political affiliations, the workers' deep preoccupation with security of their jobs, workers' hostility to rival unions, and the open intervention by the political party in power and opposition parties in the functioning of the trade union in specific factories. This only seems to prove that, contrary to the author's opinions in this matter, such political interference is ruinous to the stability and credibility of the union and profoundly weakens its effectiveness in safeguarding the workers' interests and providing them with the benefits of a unified and cooperative endeavour in facing the many difficulties that every worker experiences both within and outside the boundary walls of his factory.

Both the books are necessary reading for anyone who wants to understand the Indian industrial worker in his work environment.

SCHEDULED CASTE WOMEN: STUDIES IN EXPLOITATION. Harshad R. Trivedi. Delhi: Concept Publishing Company, 1977. Pp. xi+256. Rs 60

It is hard to be poor in India, difficult to be a woman and dis-

graceful to belong to the Scheduled Castes (SC). But the height of oppression is the status of a Scheduled Caste woman. Trivedi focuses attention on her plight.

Using only secondary data, Part I studies change in SC social status since the author considers it a better indicator of progress than economic or ritual factors. After a review of literature on the subject he analyses the present status of SC women. They have more economic independence than the upper caste women though men are usually the final decision-makers. As a result, Sanskritisation which frequently forms part of the man's upward mobility may result in the deterioration of the woman's status since part of her liberty disappears consequent upon the adoption of upper caste customs such as dowry, strengthening of the husband's authority in the family, and seclusion of the women and withdrawal from work outside the home. Moreover, only a few families may move upwards, thus creating a distance within the caste and forcing those left behind to lose their liberties without adding to their social status. On the other hand, what is sometimes considered deterioration in the status of high caste women may add to standing of SC women. When, for example, the Nair women of Kerala broke their caste tradition to become agricultural labourers on a par with the Ezhava women, they added to the status of the latter.

The author thinks that the enormous increase (upto 104 per cent) in the number of SC women in every state (except Punjab where the Sikhs tend to assimilate the SCs into their fold) recorded in the 1961 Census, is a result of the consciousness of the SC privileges and the consequent scramble for registration with one's caste identity. He tries to verify his hypothesis by showing that the increase is greater in cities than in villages. A comparison with the 1971 Census would have appeared more convincing.

Insecurity in every sphere intensifies exploitation. Though SC women enjoy more freedom than the upper caste women, their marital status is not sound as a result of prostitution, divorce, and early widowhood. Education which is low among Indian women in general (8.5 and 34.5 per cent literates in rural and urban areas respectively in 1961), is deplorable among the SC women (2.5 and 10 per cent respectively). The drop-out rate is high among SC boys and worse among girls. SC women who work outside the home are predominantly landless agricultural labourers—a profession that provides little scope for social mobility.

Part II, based on primary data, deals with prostitution—the problem that led to the study. Research in big cities had revealed that prostitutes belonged mainly to the SC. Realising that this conclusion makes little sense unless the rural background is analysed, the author studies three regions representing three types of the profession—Bija-

pur in Karnataka for sacred prostitution (Devadasi), Chattisgarh (MP) for clandestine prostitution and Uttar Kashi (UP) for its commercial aspects. However, there is but a thin line dividing the three. Devadasi dedication often becomes a step towards commercial prostitution in big cities. Even education, often considered a source of upward mobility, sometimes becomes an investment for future profits since the good manners acquired by the girl at school attract more clients. This vicious circle makes the task of Harijan social reformers doubly difficult and they meet with only limited success.

Hence the author goes on to study the social customs of the Harijans, vested interests of the dominating classes and moneylenders, socialisation of SC girls and the economic conditions encouraging exploitation. One or the other of these factors is predominant in a given area or plays the main legitimising role in the transition from sacred or clandestine to commercial prostitution. New industrial cities with a majority of males without their families, the financial success of some prostitutes and the reduction of many families to destitution consequent upon the replacement of their traditional trades by industrial goods (e.g. plastic replacing leather for shoes), intensifies the trend. Case histories and tables in the appendix substantiate this claim.

The author's analysis cannot be called very insightful, yet it is by no means superficial. The main merit of the book is its pioneering role in focusing attention on the most oppressed section of our society. Much has been written on caste, women and Scheduled Castes in general. But few have dug into the data to know more about SC women. However, one would have expected a book published in 1977 to rely more on the 1971 Census. Ten years can make a great difference. Progress during the decade would have shown the new trends and given indications for future action. Future writers on the subject will be indebted to Trivedi for this first step from which they can proceed to make a deeper analysis.

LABOUR FORCE PARTICIPATION IN LOW-INCOME COUNTRIES. Guy Standing and Glen Sheehan (eds.). Geneva: International Labour Office, 1978. Pp. vi+338. SwF 22.50

In a very efficient manner this volume presents a sort of encapsulated account of intensive enquiries that have recently been completed on labour force participation in low-income countries. Nineteen case studies have been carefully summarised, without loss to either the theoretical hypotheses or results and conclusions that gave rise to and emanated from the statistical methological analysis that formed the

core of the each study. Further, some detailed explanation and criticism of the methodology have been provided. Generally straight-forward multivariate regression analysis has been used, but occasionally some more recent types of measurement like a simultaneous equation model has been introduced to cope with the more intricate problems of household decision making and its influence on the individual choice of entering the labour force or remaining economically inactive.

In most of these case studies, special attention has been paid to female participation rates and the various influences that compel or restrain a woman's employment outside the home. Since many of these determinants are not only economic, but social, cultural and institutional as well, the statistical measuring tools have had to be refined and sharpened.

It is true that the choice of variables, both determined and determining, depend on the theoretical hypotheses constructed out of common experience and behavioural expectations. However in any regression analysis multi-collinearity often tends to dog the footsteps of the researcher who makes use of this method. Some innovative formulations have been tried out to exclude the impact of such closed circuitous involvements of the variables upon each other. A very interesting example of this new method is described in case study 5, A Simultaneous Equation Model of Household Behaviour.

For those who may find the statistical analysis too complicated, the theoretical framework, the empirical results and the summary and conclusions should provide ample material for reading and study. It is always useful to have empirical evidence of institutions one senses to be probably true, but about which one may never dare to generalise. In this respect, this volume provides a rich source of responses to some intriguing questions that are often raised in developing countries about female labour participation. Thus unlike the experience of developed countries, where child care time especially for one or more children may well lower the opportunity cost of labour and the fertility rate, in developing countries bearing more children may not affect a mother's decision to be economically active. On the other hand, the experience in Colombia shows that women working for pay outside the home have less children or lower fertility rates, while women who are engaged in unpaid family occupations on the farm have high fertility. In Mexico and Costa Rica however, the strong negative relationship between fertility and labour force participation is quite prominent. Further it is noticed that education leads to greater participation.

It is in Chile where a two stage least square estimate has been used for estimating the relationship between individual and household decisions on labour participation. The results showed significant simultaneous relationships between savings and fertility, between child

and female employment, and between savings and female employment. On the other hand in Jamaica, in the urbanised part of the economy, despite high unemployment there existed high levels of female labour participation in occupations outside agriculture. Further the statistical findings showed that the 'taste' i.e. the aspiration for higher family incomes were set by the wife. The husband's income merely determined whether she decided to participate in the labour force or not. The pecularities of Jamaican culture did not bear out the fact that household decisions were a determining influence. Education was a more important determinant in the individual decision of the woman to join the labour force.

In African countries like Ghana, Nigeria and Kenya, certain differences were noticeable. In Ghana, female participation rates were highest in the 50-54 age group in 1970 and in the 55-59 age group in 1960. There has been a definite increase in female participation between 1960 and 1970. In Nigeria and Kenya, participation of women in the labour force largely depends on education and the woman's status in the household. In Kenya, fertility levels were influenced by the economic 'value' of children since many of them were set to work at an early age when school attendance became a conflicting issue. Male children in Khartoum were found to be employed in a much higher percentage than in San Salvador. Religious culture, Catholic and Muslim, seemed to play a part in determining the greater willingness of women to enter the labour force and of girls going to school in these two countries. In Singapore, women educated in English medium schools tended to take up jobs with much more frequency than the Chinese educated women.

Though this volume of case studies represents the first beginnings of research into female labour force participation in developing countries, it will remain a very valuable contribution because of the high standard of its research methodology, its theoretical formulations and the incisive interpretation of the results of the enquiries and their significance.

SOCIAL MOVEMENTS IN INDIA: BRITISH PROTESTANT MISSIONARIES AND SOCIAL REFORMS 1850-1900. G.A. Oddie. Delhi: Manohar Publications, 1979.Pp. vi+283. Rs 65

This book, like Oddie's earlier work, discusses a much-neglected aspect of 19th century Indian movements that have become popular with recent scholars—the contribution of the missionaries about which many "popular" publications exist, but not many scholarly works.

After a fairly exhaustive survey of the missionaries' background, the author discusses the origin of their involvement in the reform movements as a means to conversion. The preachers who wanted individual conversions saw that the caste system went against individual decision; child marriage took the girls out of the school too soon thus depriving them of the "Christian influence" that could lead to their conversion; the zamindars, afraid that conversion and education as well as the support from the well-organised missionaries would make the tenant independent and deprive them (zamindars) of the means of exploitation, opposed the missionaries and persecuted the converts; drunkenness among Europeans and Christians scandalised Hindus and obstructed evangelical work; exploitation of the indigo planters by the British planters could be viewed as oppression by Christians; opium was a missionary problem only in China and was not felt in India to the same extent. In fact, it was the third most important source of revenue of the colonial government, and the missionaries involved in the educational apostolate were afraid that any reduction in it would affect the grants-in-aid system.

The missionary's approach to each of these issues depended on its evangelical value i.e. use for conversion. Later however, when many conversions did not follow (in fact reform helped the Hindus to *accept many Western values without a change of religion), some* missionaries felt that involvement in social reform, though not evangelical in nature, was justified as a humanitarian measure, while others opposed this view and felt that clergymen should restrict themselves to the spiritual field. The humanitarian view was partially the result of the developments in European social thought and new theological insights into non-Christian religions. Moreover, the missionaries could create public opinion in Britain and influence their government's policy since they were well-organised. The Missionary Conference (of all Evangelical sects) of Calcutta was formed as early as 1831, and othersw ould follow elsewhere in India. Moreover, they owned opinion-making press organs and received support from their parent-organisations in Britain.

The missionaries were the most vociferous on the caste question since excommunication and disinheritance were major obstacles to individual conversions. Moreover, the missionaries influenced by the 19th century egalitarian ideology, saw in caste the very antithesis of a just society, though they failed to see the evils of their own class structure. Hence they were instrumental in the enactment of the "Removal of Caste Disabilities Act—1850" that outlawed excommunication and disinheritance after conversion. They tried to uproot caste division in the Church but stopped short of it for fear of mass defections. Besides, they felt that only individuals were excommunicated after

baptism while caste solidarity helped mass conversions if the group leaders decided to become Christians. Hence greater tolerance set in though they were never fully reconciled to it. Besides, their efforts led to many reforms in the Hindu system.

Though the struggle against child-marriage started as a missionary issue, zenana visiting by female missionaries made them conscious of its other evils. But disagreement between the Indian and British clergy arose precisely on this issue. The former felt that the latter were imposing foreign views on them without understanding the local situation. The author calls this this the first sign of an "Indian Christian Independence Movement" (p.87). They faced the greatest opposition from Indians on the zamindari issue since it went against the interests of the landlords who dominated the powerful British Indian Association. The struggle against the British indigo planters was initiated by the missionaries in the Krishnagar district—mostly Germans—and was joined by a few others at a later stage. It received unanimous support during James Long's trial and imprisonment when battle-lines were drawn on "party lines" of missionary vs. planter. The former received support from Indians who were beginning to turn against their colonial rulers. The temperance issue took a long time to receive missionary support but slowly won over a majority among them, while the opium controversy was the most divisive and won support only from a strong minority.

The book is a mine of well-documented information from the archives as well as secondary sources. Though scholarly in nature, an introduction to each event at the beginning of every chapter makes it accessible to the uninitiated reader. The author brings out in a convincing manner, the various stages of missionary involvement in the social questions—the beginnings for evangelical reasons and the later humanitarian motives of a few. He shows the role played by the missionary's background and the changes in the social and theological thought in England.

However, Indian society and reformers seem to play at the most a supporting role. Their influence on the missionary is hardly ever mentioned. The author seems to forget that though social change and reform are caused by the consciousness of a few, the latter is in itself the product of a given environment. The influence of Indian reformers, well-known 19th century scholars like Max Muller is barely visible in this book, while opposition to reforms is conscientiously recorded. Testimonials of Indian reformers influenced by the Bible are mentioned—so are movements like the Arya Samaj that originated as a reaction to the missionaries—but not the missionary's interaction with them. The Bhakti influence on the 19th century reformers, so well analysed by Selig Harrison, M.N. Srinivas and others is not even

mentioned. While attributing to the missionaries the Kayastha change-over to teetotalism, the role of Sanskritisation is ignored. The motives for the Indian opposition to the child marriage issue are well explained. but the author has not asked whether the fact of the Krishnagar missionaries being Germans helped the intervention in the indigo episode. Though the others joined them later, no such movements started in other plantation areas where exploitation was as rampant, but the missionaries were British.

In the chapter on James Long's trial and imprisonment, the author fails to specify that his involvement was the result of his contacts with the vernacular literature, as is evident to those who have read B.B. Kling to whom Oddie refers over a dozen times. While Indian opposition to the opium reforms is mentioned, when reforms were enacted in the 20th century through the efforts of the Congress, the only compaigner mentioned is C.F. Andrews (p. 244). Other examples could be given. Like the cheap Hindi movies or American Westerns, the author's India seems to have become but a stage on which missionaries as larger than life characters overcome every obstacle and emerge victorious without help from the surroundings.

If, instead of viewing the social movements only from the point of view of "missionary contribution" the author had realised that reforms are the result of "enlightened self-interest," and had analysed the interests of various groups like the missionaries, officials, planters, zamindars, untouchables and others, he would probably have come to a much more balanced view of reality. In spite of this serious defect the book is an extremely valuable contribution to the understanding of 19th century social movements which have left their imprint on the sub-continent.

PEOPLE AND PLACES: SOCIAL WORK EDUCATION AND HUMAN SETTLEMENTS. New York: International Association of Schools of Social Work, 1977. Pp. ix+174.

As the title suggests, the book is all about the organisation of people in space and how this concerns social work. It is the proceedings of the Seminar on Social Work Education and Human Settlements, which was meant to coincide with HABITAT, the UN Conference on Human Settlements held in Vancouver in May-June 1976. This publication enables us to identify relationships, roles and responsibilities of those in the field of social welfare in yet another issue facing mankind—the problem of human settlements which, today, is of a global magnitude.

The first section of the report has eight theme papers which can

ebconsidered to be documents having an enduring importance to social work education, only a brief summary of these papers can be presented here. "Ideology of Human Settlements" by Peter Marris re-examines our ideologies of human settlements, such as 'ghettos' and 'slums.' "Cities as Human Settlements," by Albert Rose, shows the inter-relatedness between housing, family life and social work practice. "Environments," which urges social workers to be sensitive to insights gained from the natural and physical sciences as well, has a brilliant analysis of environment by S. K. Khinduka. Jack Stumpf in "Planned Communities: New Towns," discusses some very inportant considerations such as the societal purposes of new towns, the human scale of development, determination of human institutions and so forth. Richard Nann's contribution in "Ethnic Cultures and Communities of North America," gives the ingredients of a good theory of race which so far has been absent despite innumerable studies conducted. Jane Abramson's paper, "Current Dynamics and Trends in Population Mobility and their Implications for Social Welfare," is helpful in understanding dynamics of population movements and the process of adjustment in order to deliver effective services. On the other hand, social workers in post- as well as pre-industrialised societies have something to learn from the fifteen dimensions of the communal/cooperative ethics presented by Novia Carter in the next theme paper, "Planning in Post-industrial Canada: The Cooperative Ethic." A theory of social welfare that takes into account the liberal heritage of the welfare principle as against the concepts and values associated with the market as propounded by Glen Drover, in the last paper, "Urban Development, the Market and Social Welfare," could come of age and be a contribution to human settlements.

The second major section of this book which is "Developments in Social Work Education Relating to Human Settlements" reports on areas of curriculum content, field work opportunities and research achievements in Canada and the US. I would have liked to have more extensive reports going in depth, giving some descriptions of the content, specially designed practicum, types of research and their significant findings for developing further theory than a more statistical reporting as was given.

The last section titled "Overview: Social Work Education and Human Settlements," is by Herman Stein. The series of concepts that emerged related to human settlements such as interdependency, complexity, the impact of technology, the rigidity of existing institutions, alienation ideology and social justice need further clarification and development and can also be operationalised in areas of further research activity. Likewise, the two goals of social work intervention dealing with human settlements i.e. the maximisation of opportunity for

choice and the struggle for equality in the distribution of resources, need to be elaborated.

Such a seminar report should have a thorough and on-going follow-up with schools affiliated to the IASSW all over the world. Opportunities need to be provided for curricular exchange and schools helped to introduce in their course content, knowledge of employment, population, emigration, housing, land use policies, income maintenance, personal social services, political structure and processes and formal and non-formal organisations. They can be initiated into projects where they are guided by the IASSW to perform the tasks such as develop policy plans and programmes, articulate positions and strategies or try out and test some of the underlying skills such as coalition building, data retrieval and organisation, comprehensive programme analysis and communication skills in relation to human settlements.

One can see from this report that the rural focus was very much underplayed, yet it requires a more vigorous exercise of conceptualisation and practice for the future. Moreover all life in the space age is not heterogeneous and fresh thought will have to be given to the interplay of heterogeneneity and homegeneity in any society. The seminar even though limited in participation to the Canadian and American region seems rather incomplete. The concepts and forces that are in operation in the rest of the world, especially the Third World outside Canada and the US need to be brought to our attention. Little have we realised that movements of people within a country and between countries have a number of implications for social services.

It must be conceded, in conclusion, that *People and Places* is a most valuable document and is a must in every social work library for its significant contribution to new horizons in social work theory and practice.

Vera Mehta

POVERTY, UNEMPLOYMENT AND DEVELOPMENT POLICY. A Case Study of Selected Issues with Reference to Kerala. New Delhi: Orient Longman, 1977. Pp. xii+235. Rs 20

This highly interesting study of the strategy for eliminating absolute levels of poverty in Kerala examines some of the basic problems like appalling under-nutrition, surplus labour, unemployment and illiteracy so intimately connected with destitution, and the remedies like land reform, food distribution, the spread of literacy and the development of public works programmes that have been used to improve living standards in that state so as to provide an overall review

past in a detailed study of existing social institutions. The author is aware that as a village study, this book raises the question of the validity of generalising from the village or micro level to the macro level. However, in her view the 'Moranjan' community, the village chosen for study, "is envisaged as a representative one."

Both the aim and scope of the present work are rather modest. The author presents a comprehensive account of Ahom social life, emphasising the linkages between the cultural, economic and religious institutions within a village community and at the same time attempting to assess the various social changes taking place. After a brief introduction on the methodology used during fieldwork and a concise history of the earlier studies carried out, the author provides the reader with basic information on the Ahoms, patterns of migration, religion, traditions and social organisation. This is followed by a detailed description of 'Moranjan.' Chapter 4 deals with the varions economic activities pursued. The genealogical composition of the household and the size of the family in different hamlets and phiads are presented in chapter five. This chapter also examines the division of labour of the individual members of the family and the social inter-family relationships. Here the author is not consistent in her use of the terms household and family, many a time using both terms as if they were one and the same thing. While describing some of the religious rituals and ceremonies performed by the Ahoms (chapter six) an attempt is made to show their significance in the socio-religious life of the people. Though the author emphasises the fact that the traditional Ahom religion is gradually being replaced by various Vaisnavite practices, she fails to show the influence of the later on the religious practices described. An interesting feature of Ahom religious rituals and ceremonies is that they are mostly limited to lineage members and there is no religious ceremony at which all the village members participate.

The next two chapters deal with social relations of the lineage at intra-village and inter-village levels. As is the case in other societies, especially homogeneous ones, kinship plays a very important role. Among the Ahoms, however, this is not always confined to the actual kin members but kinship terms are also applied to the co-villagers giving extensive recognition to relative age and generation. The Ahoms distinguish between clan and lineage membership only in the case of ritual pollution. In chapter seven the author attempts a detailed and highly informative description of the kinship terms of address and terms of reference used and the patterns of behaviour.

In emphasising the reasons for basing her study on one particular village the author remarks that "through (it is) an intensive micro study it will be possible to provide a deeper and more meaningful understanding of the village life." While not deying the importance

of observation and the indispensability of empirical data, this not enough. One has to be careful not to stop here. The main weakness of this study is that more energy has gone into detailed description than into analysis. Descriptions often tend to divert attention from the argument where there is one. There is also a major flaw in the presentation of the empirical material itself The author's scheme of presentation appears to be rather haphazard. The chapters could have been arranged more logically. Short summaries at the end of each chapter would surely have helped. Another weakness of the book is the scrappy index. An index is a tool of research and one expects the author to be as concerned about it as about the collection of data.

Barring these weaknesses, this book is a welcome addition to the anthropological literature of tribal India. It contains a wealth of first hand material which undoubtedly enhances our knowledge and understanding of India's Adivasi commnnities. It also throws light on the ways in which these communities are adjusting to the challenges of social change.

POVERTY, PLANNING AND INFLATION. C.N.Vakil. New Delhi: Allied Publishers, 1978. Pp. xxx+316. Rs 70

For those who would like to browse through the memoirs of an elderly economist in order to savour some of the interest of the economic discussions that exercised the minds of Indians in pre-independent India, the first part of this book by the veteran economist, Prof. C.N. Vakil, should provide useful source material. Gandhiji had asked Vakil for his assessment of poverty in India and to suggest some remedies. These were published in *Young India* and it is surprising to note that the professor disagreed with Gandhiji on the *charkha* as the sole production agent for dispelling poverty. Among the remedies suggested there is mention of enlarging the cultivable area in the country, the need of setting up the gold standard and the establishment of a Reserve Bank to replace the Imperial Bank of India.

With the arrival of independence, Professor Vakil was summoned by the new government of India to advise it on the economic problems that had arisen in the aftermath of World War II. In this section of the book that is devoted to Technical Papers on Planning and Development, Professor Vakil, together with his colleague Dr P.R. Brahmananda, produced a number of papers, one of which deserves to be singled out, viz. Investment Pattern in the Second Five Year Plan, in which they reacted strongly to the Mahalanobis programme of almost exclusive priority being given to investment in heavy industry to the practical neglect of agriculture. Branmananda's insistence at that

time on the importance of producing 'wage goods' in a developing economy like India's to eliminate poverty and provide employment for the agricultural masses is reiterated in his article on "The Future of Planning and the Planning of Future," where he critically examines the Fifth Five Year Plan. Both Vakil and Brahmananda have been proved correct in their surmise that the concentration on large-scale industry to the neglect of wage-good industries would not solve India's basic problems of acute poverty and unemployment, especially in rural areas.

The third part of the volume is devoted to papers by Vakil on certain allied aspects of development. One of them deals with the development of agricultural economics in India and another with the growing interest in labour economics. Two other essays have also been included which form the introductory and closing chapters of Vakil's book on *Industrial and Economic Outlook in India, 1973*. There seems to be no serious reason why these need have formed part of the present volume.

Finally there are the two papers on inflation, but of recent origin. Vakil is convinced that the main instigator of inflation is the government through its expansive policies of money supply, deficit financing, and enormous expenditure on public sector projects and employees. A species of wage and incomes policy is recommended to contain inflation. The villain of the piece seems to be deficit financing emerging from a belief in the application of Keynesian remedies to a stagnating economy. Anyway the so-called 'semibombla' plan suggested mainly by Brahmananda though very ingeniously formulated to reduce the money supply by 30 per cent, seems to be highly impractical.

One does receive the impression that this loosely composed volume hardly merits much more than passing mention as a useful reprint of papers and material already published. Perhaps a more selective choice of the author's really outstanding pieces might have been more worthy of an economist who has played an important role in the development of economics in India.

RELIGION AND CULTURE OF NORTH-EASTERN INDIA. Raghuvir Sinha. New Delhi: Abhinav, 1977. Pp. 120. Rs 40

There are no people however primitive who are without religion. Religion interacts significantly with other cultural institutions to such an extent that no other social phenomenon especially in simpler societies with their relatively simple technology and low degree of differentiation in their social structure, presents a larger range of expression and implication. For a sociologist and social anthropologist this is

perhaps a truism and, as a result, it is important to show how this is done in a particular society having a structure of its own. Unfortunately, though the author presents this as the aim and scope of his present work, he has failed to go to the roots of the problem chosen for his analysis. He fails to show how religion interacts with other social institutions in material culture, human behaviour, value systems, etc. In fact the main weakness of the book lies in its very title which makes the framework of reference too vast to do justice to its analysis. The author tries to cover too much material in too little space with the result that there is hardly any analysis. It would have been more profitable had the author restricted himself to an analytical evaluation of the religious beliefs and practices of the Akas among whom he had worked.

Some of the statements made by the author need to be corrected (there are places where he contradicts himself) others are mere generalisations and need to be substantiated. Thus, for example, Durkheim did not say that religion is more important than magic, as the author states (p. 28). Durkheim's view was that, while religion was a social phenmenon related to the very existence and maintenance of society, magic was antithetical to collective solidarity and, therefore, hostile to society. In a number of places (pp. 6, 12, 18, 24, 37) the author reiterates his claim that the religion of the north-eastern tribals is different from that of tribals in other parts of India. The principles on which he bases his arguments (e g , the qualities mentioned by Verrier Elwin, p. 34, and the duality of faith in benevolence and malevolence, pp. 18-19) are true of most, if not all the tribal religions and not only of those of the sub-Himalayan regions. One, however, has to be careful not to make the fundamental mistake of classifying all tribal religions under one blanket category. Each tribe, especially the major ones, has its own distinct religion. This phenomenon in fact forms the basis of each tribe's fundamental identity and integrity. In the same line the author remarks that "the tribes of north-eastern region of India have their own system of religion...which has still remained uninfluenced by any foreign religion, Hinduism, Budhism or Chiristianity" (p.37). Not only is such a sweeping statement totally unfounded but the author contradicts himself when (pp. 13ff) he distinguishes between Buddhist and non-Buddhist tribes. He also points out that "the only threat to much of the north-eastern ceremonials seem to be caused by the increasing influence of Christian missionaries" (p. 79). The author tries to cover up this error by deliberately elimating from his discussion, as he himself states, certain important tribes. This is nothing but a manipulation of empirical data.

One of the major contributions of Durkheim and the other functionalists to the sociology of religion has been the importance they

INDIAN SOCIAL INSTITUTE

Centre for Research, Training and Action in Social and Human Development

Started in 1951 the Indian Social Institute is a Centre for Research, Training and Action, Its primary objective is to contribute to *the development of a just social order by focusing on the under-privileged groups of society.*

The Institute functions through three departments with staff at Delhi, Bangalore and in different states in India. These departments are:

- Research and Publication
- Extension Service
- Training

RESEARCH & PUBLICATION

The Research department undertakes research in collaboration with voluntary organisations, government departments and international agencies:

Labour Economics
Migration
Urban development
Women and Family
Problems of Fertility Control

are some areas of concentration and concern. Often the interests of individual scholars determine particular areas of study and action.

The department has organised national and international seminars and conferences on:

Trade and Development
Poverty
The Family in India
Population Growth and Women

The research data and findings are widely disseminated through Monographs/Books/Papers

SOCIAL ACTION is a quarterly journal of the Institute. It is a journal of social trends and has been published continously since 1951. A microfilm edition of Social Action is also published by University Microfilms International, Ann Arbor, Michigan, USA. Refer to 'list of publications'.

TRAINING

Preparing personnel for development efforts or enabling others to increase their efficiency on-the-job is yet another means to achieve the goals of the Institute.

To accomplish this task the Institute has several approaches such as

The Family Life Centre (Delhi)
Programme for Women's Development (Delhi)
Training Centre (Bangalore)
Documentation Centre (Bangalore)
Mobile Orientation Training Team.

Residential courses are offered in Delhi and Bangalore. The staff also make themselves available for the purpose anywhere in India.

ISI-FAMILY LIFE CENTRE

The Family Life Centre of the ISI offers the following:

Courses/Services/Programmes

Family life education for youth, adults and trainers.
Natural Family Planning for users, trainers, directors.
Counselling: marriage and sexuality.
Marriage Enrichment programmes.
Child Care and Child Guidance programmes.

PROGRAMME FOR WOMEN'S DEVELOPMENT

Aims to increase the participation of women at different levels in the development process through

Training courses for women community organisers.
Studies of disadvantaged women.
Publication of articles and books to disseminate ideas on the changing role of women.
Promotes programmes for women.

ISI-TRAINING CENTRE

24 Benson Road, Bangalore 560046 Tel.: 55189

Planned in 1961, the training centre has now well-established facilities for various types of courses, seminars, meetings and conferences.

Regular courses of 3 months duration are held twice each year.

The content of the courses adapted to changing trends come under the broad category of community development and organisation, mass education and organisation. Courses now emphasise the need of political action to change unjust structures. Theory and practice are stressed.

The Centre through its dynamism attracts young and old not only from India but from Nepal, Thailand, Malaysia, Indonesia and Bangladesh. Staff follow up students in the field and hold meetings to strengthen them in their activities.

DOCUMENTATION CENTRE

Begun in Delhi in 1976 the Documentation Centre has moved to the Bangalore Training Centre.

Its main aim is to collect and document relevant material on various themes in the social, economic and political fields which are circulated to a large number of readers.

One of its chief services is directed at groups of persons engaged in social work, social action and non-formal education. It also assists groups in rural or urban areas to conduct surveys and plans action based on their findings.

MOBILE ORIENTATION TRAINING TEAM (MOTT)

Contact address: ISI, Lodi Road, New Delhi.

The Institute's latest innovation is a mobile team of experts in development, agriculture and community health.

Constantly on the move in different States of the Union, the team stimulates groups on several levels to study, reflect and act according to the needs. They conduct training programmes as a team or individually in field situations with varying logistic difficulties.

EXTENSION SERVICE

Initiated in 1960 at Bangalore, the Extension Service now operates from the Institute's headquarters at Delhi. It has well-qualified staff in various centres covering the entire Indian sub-continent. Its main activities are:

—Promoting socio-economic programmes and projects with the poor in rural and urban areas based on needs and priorities.

—Making fasibility studies of planned projects.

—Helping the growth of local structures to serve the poor through appropriate programmes.

—Giving consultancy services to local sponsors to plan and organise their projects and tap internal and external resources.

—Providing consultancy services through on-the-spot studies to several funding agencies in India and overseas. It processes several hundred projects each year.

—Participating in training programmes organised by groups, institutes or associations.

Residential and other Facilities

Adjacent to the Institute's head-office is the ISI-Hostel with facilities for Board and Lodge for participants of courses, seminars or conferences. Full-time staff make the hostel a welcome place for participants.

Excellent facilities for classes, courses, seminars and conferences are made available to social organisations, trade unions and others coming from all over India and overseas.

SOCIAL ACTION

A Quarterly Review of Social Trends

APRIL-JUNE 1979 VOLUME 29 NO. 2

CONTENTS

Health Education Evaluation and Beliefs and Practices in Rural Tamil Nadu

C.M.E. Matthews

This paper reports the findings of two studies in North Arcot District of Tamil Nadu, one of which was an evaluation of health education programmes. A wide range of information is made available on the local Tamil names for allopathic diseases, their aetiology, beliefs related to preventive and curative practices, significance and medical consequences of recourse to doctors and practitioners of indigenous systems of medicine. The attitude survey covers a variety of topics about which not much is known—immunisation, sanitation, environment, antenatal care and allopathic medicine. The data suggest that allopathic treatment is preferred for most diseases, though traditional or spiritual methods continue to be used for certain diseases, many of which are believed to be the cause of infant and child mortality.

In this paper and two others to follow, the results of two studies are reported. The first study was carried out in two blocks, K. V. Kuppan and Anaicut in North Arcot District, Tamil Nadu. The second study was in a part of Kanniambadi Block in the same district, and was carried out in order to evaluate the extension work of the Department of Community Health. In this second study the service area was campared with a control area. Government services are of course present throughout both service and control areas but it is assumed that these will be similar at least within each block. The first study consisted of a knowledge, attitude and practice (KAP) survey only; the second study also included a census and household survey, and weighing of all children under 5 years.

Health education programmes should be evaluated by assessing the change in behaviour obtained, as this is the final goal of such programmes. However it is often useful to evaluate also the inter-

---

Dr. C.M.E. Matthews is Director, Health and Nutrition, YMCA Tribal Development Project, Yellagiri Hills, Tamil Nadu. She is very grateful to the following who carried out the interviews and computed the results: Mr. Iyanar, Mr. V. Mani, Mr. T. Viswanathan, Mrs. C. K. Jeyashree, Miss. Dhanalakshmi Mr. R. Lakshmanan and Mrs. Susila Suriya Sam.

mediate stages, and to assess knowledge and attitude as well as practice. Such a study is also a useful preliminary stage before starting health education. An important principle of health education is "start from where they are." We cannot do this unless we know something about existing knowledge and attitudes. Communication is difficult if people do not share any common beliefs or knowledge. We cannot expect the patients to immediately assimilate our ideas, and so it is our *responsibility* to learn about their ideas so as to bridge the *communication gap. The extistence of this gap can easily be demonstrated by asking patients coming out of a rural health centre about what the doctor told them, what disease they have, what is the prognosis.* Usually they will have practically no knowledge of these things. When we understand their beliefs about the causes of diseases, the symptoms and the treatment, we can build on existing useful ideas rather than attempt to remove all their present beliefs. Also various kinds of traditional practitioners have much influence and cannot be ignored; their influence may be useful if their cooperation can be obtained.

Methodology

Questionnaires

The design of the KAP questionnaire is based on a previous more detailed study in one village in K. V. Kuppam Block (Mathews 1975 and 1979). In this study it was found that village people had their own names for diseases, which sometimes corresponded to a particular allopathic disease, or sometimes included serveral different allopathic diseases, or several names might be given to the same allopathic disease. In the present survey these names have been used to ask about these diseases. For example villagers believe in about 6 different kinds of diarrhoea and if only one word is used for diarrhoea much information about their beliefs is lost.

Attitudes were measured by means of Likert scales for various health topics. The scale items were pretested and selected by the method of internal consistency (Likert 1976). The whole questionnaire was quite long and took about 1½ hours to administer.

Census

In areas A, B and C (second study) the census was taken for every household. Each member was listed with age, education and occupation, and births and deaths in the previous year were recorded. It is often difficult for people to remember births and deaths which occur more than one year ago, so respondents were only asked about

these events in the previous 12 months. However as it was not possible to complete the census in all villages simultaneously, the period for recording of births and deaths is slightly different in each village. These periods extended from January 1975 to December 1976, except for one village, Sholavaram, where the period was December 1973 to December 1974.

KAP sample and interviewers

In areas D and E no census was taken but households were listed in order to obtain a systematic random sample for the KAP survey. Every tenth household was taken in areas D and E and every fifth household in areas A, B, and C. Heads of households or their wives were interviewed in alternate households. The questions on antenatal care and delivery, weaning and diet of children under five years were put only to women. Further details on methods used for diet and weaning survey and weighing of children will be given in the third paper. Male interviewers interviewed men and female interviewers women, with only a few exceptions. The interviewers for areas A, B, C were one female social worker and one male mathematics graduate. The interviewers for areas D and E included for men a social scientist, a health educator, and a sanitary inspector; for women a nutritionist and a social worker. Every attempt was made to obtain an interview with the sample person, but there were some refusals, some had moved out since the households were listed and a few were never available or had died. The total number of samples and per cent completed for all the areas was as follows.

Area	No. sampled	% completed
A	289	76
B	169	84
C	284	77
D	1528	95
E	1580	90

C. M. C Services in Different Areas

The different areas covered in these studies included the following

Area	*Block*	*Population*	*CMC Service**	
A	Kanniambadi (part of 4 *panchayats*)	7,560	Rural Hospital within 5 miles. Leprosy SET units	PHN visits MCH clinics Leprosy clinics Family planning
B	Kanniambadi (3 villages)	4,370		
C	Kanniambadi (5 *panchayats* and 3 villages)	7,260	Family Planning only	
D	Anaicut (whole block except for small in-accessible hill area)	84,000	Weekly mobile clinic (2 stops) up to 1973	
E	K. V. Kuppam (whole block)	90,000	PHN visits & and Rural Hospital for 10,000 population	

*PHN = Public Health Nurse; MCH = Maternal and Child Health; SET = Survey, Education and Treatment.

In addition to Government services throughout, in K. V. Kuppam Block there is a leprosy service, SET Units, run by the Schieffelin Leprosy Research and Training Sanatorium, Karigiri, since 1963.

Details of the separate villages in areas A, B, C are given in Table I (p. 21) with services given in each village. Area A includes those villages where service has been given for a number of years. In area B services had only been given for a comparatively short time when the survey was carried out. The family planning service was mainly home visits by two field workers, with occasional film shows. Leaders' meetings on various topics were held occasionally. In one *panchayat* of area A a special nutrition project was carried out (Mathews Benjamin Samikkannu, Punithavathy & Palocaren 1977), and in area A plus one *panchayat* in Area C, a leprosy health education project (Mathews, Jusudasan, Selvapandian and Benjamin, forthcoming) was carried out; however the latter was after almost all the surveys had been finished so it does not affect these results. Village handicrafts were also started in area A, but again the effect of this came mainly after the present surveys. A health insurance scheme was started in Edayanchat in area A in 1975, and about 30 families joined.

In addition, medical students visited most of the village under the Family Health Advisory Service; each of two students were responsible for the health care and health promotion of two families.

Also occasionally medical and nursing students and interns posted in the Rural Hospital carried out special projects in the villages, such as immunisation for example.

Findings

In this paper results are given for diseases, their symptoms, causes, prevention and treatment and also for sanitation. Results on family planning and antenatal care are given in another paper, and on diet and weaning in a third paper.

Results for areas A, B and C for disease and sanitation were similar to those in areas D and E for most questions and there were only very few statistically signifiicant differences. Therefore to simplify the tables, only results for D and E are given except where results in area A differ significantly from area C or from areas D and E. Differences between areas C, D or E are not relevant for present purposes, and may be due either to differnces in geographical areas, or to differences in Government services.

Some of the statistics obtained are shown in Table 2. As already explained, the births and deaths were recorded for slightly different periods for each village. Except for Sholavaram, all these periods are between January 1975 and December 1976. Since Sholavaram is considerably earlier (December 1973-December 1974) and birth rates etc. may be changing with time, results are also given for area C excluding Sholavaram. In fact this makes no significant difference. There is very little difference in the statistics for the three areas (except for weights, see paper three). Birth rate and percentage of preschool children are both slightly higher in the control area; this is not statistically significant.

The economic status is dificult to calculate accurately. The estimated mean income per family per year is shown for the whole population from the census data, and for the KAP sample population from the KAP data. The mean per capita income for different villages did not vary much. However, this may not be correct; it was assumed that all coolie workers get 210 days work per year, whereas in fact this will vary in different villages according to the total amount of land owned by landowners in that village. A correction could made for this, but in some adjoining villages coolies also work on land belonging to the next village, so this correction would be difficult to make. People do not readily remember how many days coolie work they get each month, and there does not seem to be any simple way of getting over this difficulty. In a previous publication a more intensive study of the family economy was made (Matthews 1979) but this takes much time and could not easily be done over a wider area. Assets are lower in the service than in the control area (difference

highly significant, p<.001). Assets are considerably higher in area D (Anaicut Block) than in other areas, at least for the KAP sample respondents, and this difference is highly significant (p<.001).

In some villages birth rates were obtained for several successive years and these can be examined to investigate the trend in the birth rate. This is only possible in the larger villages, otherwise the number of births is very small. The results are shown in Table 3 for 5 villages. Except for Pennathur village there tends to be a downard trend in the birth rate from 1973 or 1974 to 1976.

Classification of diseases

As already mentioned, villagers have their own names for diseases which do not correspond exactly with allopathic diseases. Where there is no exact one to one allopathic equivalent, the Tamil name or an English translation of the Tamil name for the disease has been used. Twenty diseases were included in the questionnaire, either because they are of importance for community health, or because they are of great importance to the village people. A brief summary of the explanation of these diseases follows. More details are given below and in another publication (Matthews forthcoming).

Fever	The same as allopathic
Typhoid	The same as allopathic
Cholera	The same as allopathic. It is occasionally thought to be a visitation of goddess Mariamma.
Measles	The same as allopathic. It is thought to be a visitation of goddess Mariamma.
Diarrhoeas	
Bedhi	Diarrhoea, throught to be due to heat.
Mandhai	Diarrhoea in babies and small children, thought to be due to lactating mother eating certain forbidden foods, which harm the baby through the mother's milk.
Dhossham	Diarrhoea with dehydration and sometimes vomiting in small children. It is thought to be due to the lactating mother seeing a woman who has had an abortion recently, or seeing a dead dog or cat. Some eveil influence gets tnto the child through the mother's milk.
Dysentery	Same as allopathic.
Worms	Only visible worms will be known.
Sevappu	Disease occurring in new born babies who become cyanosed and often die. The allopathic equivalent or this disease has been investigated and includes various conditions including cyanosis due to venous stasis arising from mechanical and anoxic birth injuries, peripheral circulatory collapse, hypothermia or haemmorrhages (Jadhav and Matthews 1976).

Janni	This includes several different diseases with different symptoms and causes according to the village people. One of these occurs in women after delivery and may be post partum psychosis; it is thought to be due to cold. Another disease occurs in men and is thought to be caused by sexual intercourse with a menstruating woman.
Isivujanui	This is the nearest term for tetanus, but may be taken to mean fits due to other causes.
Whooping Cough	Same as allopathic, It is believed that it will last for 3 months. The people believe in various traditional methods of treatment and prevention.
Scabies	Same as allopathic.
No blood	This is the nearest term found for marasmus, but may also be taken to mean anaemia.
Udhukamalai	Kwashiorkor, or anaemia with oedema, is thought to be related to *manjal kamalai*, which is jaundice.
Mouth sore	This includes angular stomatits and other mouth sores.
Tuberculosis	Same as allopathic. The name may be used for other respiratory diseases also.
Leprosy	The name is only applied to lepromatous leprosy. The patch is not connected with leprosy and is attributed to themal (tinea versicolor) or a bite.
Smallpox	Same as allopathic. Only prevention was asked about, as all believe it is caused by visitation of goddess Mariamma.

Some of these disease categories are also discussed by Djurfeldt and Lindberg (1976), who studied one village in Chingleput District, Tamil Nadu. Their "karappu" is clearly the same as "sevappu" (also called *karunsevappu* or *karunnoi*, [Matthews, 1979]). However they equate it with tetanus only.

The results are shown in Tables 4-8, for these 20 diseases. Not all questions were asked for all diseases: for example prevention was not asked about where there is no allopathic prevention, symptoms were asked about mainly where one village name includes several allopathic diseases, or one allopathic disease is thought by villagers to be several different diseases. In Tables 4-8 those responses which were given by only a relatively small per cent of respondents have been omitted. In general the results are similar in the two block, but there are a few differences which will be mentioned.

Symptoms

In table 4 (p 24), the symptoms mentioned for various ambiguous diseases are shown. The different symptoms may correspond to different sub-divisions of the disease, e.g. for *janni*, or for "no blood"

which can mean marasmus or anaemia. For leprosy only 8 to 11 per cent mention the patch and most give the symptoms of lepromatous leprosy; as already discussed, only this is "leprosy" to most villagers. "Udhukamalai" (kwashiorkor) in sometimes confused with jaundice (*manjal kamalai*) to which it is believed to be related.

Result for areas A, B and C were similar to those for D and E.

Causes (Table 5; p. 25)

The causes are similar to those found in the previous study (Matthews 1979) were they are given in more detail. Measles, smallpox and sometimes cholera and whooping cough are believed to be *ammai*, which means that they are supposed to be due to a visitation of the goddess Mariamma or one of her six sister goddesses. There are also many other *ammais* for some of which the allopathic equivalent is not known (Matthews 1979). Somewhat fewer respondents mentioned the goddess in K. V. Kuppam Block than in Anaicut Block. For *dhosham mandhrams* will be chanted. These are prayers in Sanskrit believed to have magical powers to cure disease. Also a *thayittu*, a string with a piece of rolled up metal with a *mandhram* written on it, may be tied round the neck.

For both *dhosham* and *mandhai* there is a harmful effect on the baby due to something in the mother's milk. There are believed to be about six different kinds of diarrhoea; another kind is *kudalettram* mentioned as cause of *bedhi* (the ordinary Tamil word for diarrhoea). *Kudalettram* is thought to be caused by the intestines getting displaced upwards or twisted due to lying in a hollow place, or due to a fall. Another kind of diarrhoea is believed to be due to indigestion. "Heat" is also a possible cause of diarrhoea. The idea of "heat" comes from the Tridosha theory and requires some explanation.

The Tridosha theory is the basis of much of the Ayurvedic system and other Indian systems of medicine, (Kuttumbiah 1969). According to this theory there are 3 elements in the body which must be kept in balance—heat, cold and air. Certain foods produce heat in the body, others produce cold and others air. This is nothing to do with hot temperature, or hot spicy foods, but is the supposed effect on the body. If too much of one kind of food is eaten. e. g. "hot" food, this produces an imblance of heat, and this leads to certain diseases. Cold foods should be eaten to restore the balance. This theory is discussed more thoroughly elsewhere (Matthews 1979), and is described in detail by Kutumbiah (1969). Diseases which were mentioned in this study as due to heat include measles (subsidiary cause), diarrhoea, dysentery, whooping cough (by a few respondents only), scabies and mouth sore. Diseases said to be due to cold include fever, typhoid, *janni* and *isivujanni*.

Some diseases are attributed to dirty sorroundings or lack of hygiene, e. g. cholera and scabies. It is also believed that if purgatives are not given regulary that dirt accumulates in the "stomach" and causes disease (the stomach, intestines and other internal organs are not distinguished). For example, worms is said by some to be due to not taking a purgative.

Eating certain things that should not be eaten is another cause of disease, e. g. eating uncooked rice or earth, for worms or *udhu kamalai*, or eating ash for *udha kamalai*. Eating sweet things is also thought by some to cause mouth sore or worms.

Sevappu is cyanosis or blueness of the extremities in the new born and is a much feared disease. In the previous study a traditional practioner and others said it was due to a kind of heat caused by too much sexual intercourse for the mother during pregnancy. In this study people have mentioned the pregnant mother eating forbidden food, or hereditary cause, or infection. The exact allopathic equivalent of *sevappu* is being investigated; it includes a number of different conditions (Jadhav and Matthews 1976).

The symptoms which correspond to the different forms of *janni* are not quite clear and some symptoms may be common to several forms. *Isivujanni* is not known by many and may be confused with other kinds of *janni*.

Malnutrition diseases are not usually recognised as such. The two meanings of ("no blood," *raththam illadha)*, as marasmus or anaemia have already been mentioned; many do not know about it at all. *Udhukamalai* (kwashiorkor, or anaemia with oedema) has also been discussed already; it is not attributed to lack of any food.

For tuberculosis and leprosy most people do not know the cause; some say infection or heredity for both these diseases. For leprosy some also attribute it to excessive sexual intercourse, and in other studies (Matthews, forthcomming; Selvapandian, Richard and Wilson 1972; Selvapandian 1975) this was the most frequently mentioned cause. It is thought that leprosy is a later stage of venereal disease.

For causes of diseases, results in areas A, B and C were similar to those for areas D and E. The only significant difference was that scabies was attributed more often to lack of daily bath in A ($p<.01$).

Prevention (Tables 6 & 7; pp. 28-30)

For prevention there is some improvement of knowledge in the service area. More respondents mentioned immunisation as a method of preventing typhoid measles, whooping cough, and *isivujanni* (tetanus). This difference was highly significant for measles ($p<.01$),

and probably significant for *isivujanni* ($p < .05$). For measles it is unlikely that many have actually heard about the vaccine which was only used in two villages; they may be thinking of smallpox vaccination (*ammai*). Also in the control area more people mentioned taking good food to prevent *raththam illadha*, nearest term for marasmus (difference probably significant $p < .05$). For tuberculosis more mentioned injection for prevention in the service area, and also more mentioned nutritious food for prevention in this area (both differences not signifiicant). A larger number in the service area (Table 7) knew about immunisation (highly significant $p < .001$) and understood that it prevents the disease before it comes (probably significant $p < .05$).

More knew about immunisation for whooping cough, fever (both highly significant, $p < 001$), tetanus (significant $p < .01$) and tuberculosis (not significant) in the service area (Table 6). Also a larger number had their children immunised (difference highly significant, $p < .001$), mainly for smallpox and whooping cough (Table 7).

Reported Occurrence and Treatment (Tables 8 & 9 pp. 31-32)

Table 8 shows the per cent of respondents who said they had the disease in their family. For nearly all diseases more respondents said they had the disease in areas D and E than in areas A, B, C. (This any be only related to the way the question was asked, e. g. more time given for remembering, and is probaly not a real difference.) For whooping cough and *raththam illadha* (marasmus), there is lower reported incidence in the service area, but this difference is not significant. Table 9 shows the treatment most commonly taken (or what would be taken if they had the disease). "Traditional" treatment includes treatment by Ayurvedic, Siddha or Unani practitioners. Another kind of traditional practitioner is the *chembadavar*; those taking his treatment are included in the traditional treatment. *Chembadavars* are specialists in children's diseases and may give Siddha or Ayurvedic medicine as well as chanting *madharams* which are prayers in Sanskrit, the chanting of which is believed to have magical power to cure disease. "Spiritual treatment" means treatment by *mandhrakarers*, who only chant *mandhrams* and do not give any medicine.

For the first 8 diseases in Table 8, allopathic treatment is preferred by the majority of respondents, altough for "no blood" the per cent is lower as many do not know. For the next four diseases, a larger per cent of respondents take traditional or home treatment, although about half will take allopathic treatment. For the next four diseases mainly traditional treatment is taken, including treatment from *chembadavars* for *udhukamalai* and whooping cough; these four are all diseases of children. For *dhosham*, also a children's disease,

the treatment is mainly "spiritual" or by *chembadavars* in both cases involving chanting of *mandhrams*. Mouth sore is mainly treated at home, or by traditional treatment and measles is either treated at home or no treatment is given. Homeopathic treatment is not very important for these discases, fever is mentioned most often for homeopathic treatment. The per cent of respondents who do not know what treatment they would take is usually small, but is largest for "no blood" and for *sevappu*, tuberculosis, leprosy and *isivujanni*.

It seems allopathic treatment is not taken for diseases which are believed to have a supernatural cause or for which there is no clear allopathic equivalent to the traditional concept of the disease. *Janni* is an exception to this as the allopathic equivalent is not clear, nevertheless allopathic treatment is taken. It seems also that most of the diseases which are common causes of death in small children are treated mainly by non-allopathic methods.

There is a slight tendency for more respondents to prefer allopathic treatment in the service area A than in the control area. The greatest differences are for whooping cough and *udhukamalai* (kashiorkor or anaemia with oedema) and also *acharam* (angular stomatitis or mouth sore) leprosy and *bedhi* (diarrohea). These differences are highly significant ($p < .001$). The difference is also significant for scabies ($p < .01$). However when all five are considered together it seems that for leprosy *bedhi* and mouth sore that it is area C which is low for allopathic, rather than area A which is high.

Curability

When asked whether the disease can be cured, the per cent who said "yes" was 54 to 72 per cent in the different areas for *raththam illadha* (marasmus or anaemia), 63-81 per cent for *udhukamalai* (kwashiorkor or anaemia), 81-91 persent for mouth sore (including angular stomatitis), 26-65 per cent for tuberculosis and 16-38 per cent for leprosy. For the first three of these diseases, the malnutrition diseases, most of the remaining respondents did not know whether the disease could be cured, and for tuberculosis and leprosy some said it could not be cured and some did not know. For tuberculosis a higher per cent in Anaicut Block (50.6 per cent) than in K. V. Kuppam Block (26.2 per cent) believed that it can be cured, and in the service areas A (60 per cent) and B (64.5 per cent) also the precentage is higher. For *raththam illadha*, *udhukamalai* and leprosy also the per cent who believe it can be cured is higher in area A. Thus there is some tendency for more respondents in the service area to believe that diseases can be cured and the difference is highly significant for *udhukamalai*, significant for tuberculosis, and probably significant for the rest.

With regard to the time required for cure, most respondents said less than one month for *raththam illadha*, one week to three months for *udhukamalai*, one day to two weeks for mouth sore, less than three months to five years for tuberculosis, and less than one year to five years for leprosy. Of those who said leprosy can be cured, about one-fifth to one-third said less than one year. Thus the time required to cure malnutrition diseases is somewhat understimated, but for tuberculosis and leprosy the underestimation is much greater.

Communication with the doctor (Table 10; p. 33)

When asked what they ask before leaving the doctor, some ask when to come again, how and when to take the medicine, and what food to take. Between 19 and 26 per cent won't ask anything. Only 4 to 14 per cent ask when the disease will be cured, and only 2 per cent ask what disease they have. Only 0.2 per cent in Anaicut Block and 7 per cent in K. V. Kuppam Block ask what is the cause of the disease.

When asked what the doctor tells them, some say that he asks them to come again after 2 or 3 days, or to come again if not feeling well. Some say he gives directions about food. This probably derives from traditional practioners who usually prescribe a restricted diet. A few say he prescribes the medicine or says that the disease will be cured soon. Only 0.2 per cent in Anaicut Block and 2 per cent in K. V. Kuppam Block say that he describes what the disease is.

There is clearly very little communication between doctor and patient about the nature of the disease. This was also discussed in the earlier study (Matthews 1979), where it was suggested that this lack of communication was an important barrier towards effective use of health services. The visit is often inffective because patients do not know how to use the services. Patients' expectations are nor met and they become disillusioned and change to traditional practitioners. The doctor is often not interested to explain the disease in simple and relevant terms to the patient, and the patient is often afriad to ask in case the doctor might get angry, or simply has become conditioned not to expect any explanation. Effects of social and cultural gap between doctor and patient are also discussed by Mahadevan Pillai and Dutt (1976).

Available services

Respondents were asked where people in their village go when ill and what diseases are treated by each practitioner or centre mentioned. Answers could be classified into the following types of services:

ALLOPATHIC

Hospital
Primary Health Centre (PHC)
Other health centres (e. g. CMC Health Centre)
Panchayat Union dispensaries
Mobile units
Private MBBS doctors
Maternity assistants/ANMs PHC sub-centres or
Maternal and Child Health (MCH) centres
Leprosy SET units (e. g. SLRTS, Karigiri programme)
Tuberculosis sanatorium

HOMEOPATHIC

Private practitioners

TRADITIONAL

Ayurvedic, Siddha or Unani practitioners
Chembadavars (children's specialists)
Bone setters
Untrained *dais*

SPIRITUAL

Mandharakarars
Muslim mosques

These are similar to the types found in the previous study. Different types of traditional and spiritual practitioners are also described by Djurfeldt and Lindberg (1976).

Allopathic. Many different hospitals were referred to, some quite far away probably by people who had moved from another place (e.g. Bangalore). All the main hospitals in Vellore and nearby were mentioned. Most frequently mentioned were Government Hospital in Vellore, and CMC Hospital. The primary health centre for each block was mentioned frequently and also PHCs for nearby blocks were mentioned, as well as the *panchayat* union dispensaries in each block. The CMC Rural Health Centre at Kavanur was also mentioned (very frequently in K. V. Kuppam Block) and the former mobile service from C.M.C which operated in Anaicut Block. Many private MBBS doctors, mostly in Vellore, were mentioned, each by a few people. In K.V. Kuppam Block, one such doctor who comes daily from Vellore was frequently mentioned. A few L.I.M. and L.M.P. doctors were also mentioned, and some who were not identified may also be L.I.M. The maternity assistants at most of the sub-centres and M.C.H centres were also mentioned a few times.

Homeopathic. A number of different homeopathic doctors were mentioned. Nearly all are within the block, but a few are in Vellore.

Traditional. A number of Ayurvedic, Siddha or Unani practitioners were mentioned mostly within the Block. These cannot be distinguished from each other as the people do not know the difference, and only by interviewing them can it be ascertained. A few of them were interviewed in the previous study or have been interviewed since. Most of them use medicine from several different systems.

Some of the well known *chembadavars* in Vellore and Gudiyatham were mentioned. These are very important and influential. Also a few bone setters, including the well known ones at Nagariputhur in Andhra Pradesh were mentiond.

A very large number of untrained dais were mentioned since there are usually at least two or three in every village.

Spiritual. A few Muslim mosques were mentioned, one in Vellore one in Gudiyatham and others in the Block.

Mandhrakarars, like untrained *dais* are present in nearly every village, and so a large number were mentioned. They treat mostly *dhosham*, and bites, by chanting *mandhrams* (prayers in Sanskrit), and may also give a special string to tie round the neck, sometimes with a *mandhram* written on a piece of metal *(thayittu)*.

Use of services

All these type of practitioners have been described in detail in the previous study. Their influence is very strong and they might be positively used if they can be educated. In some cases their methods would need only slight modification. They are potentially useful for health education. They could also be taught when it is important to refer the patient to a hospital; they do this in any case if they cannot cure the patient. The *mandhrakars* (men) and the (women) are in large numbers but may be the most difficult to educate and change. Both are strongly traditional and often quiet old. The Ayurvedic/Siddha/Unani practitioners may sometimes be more cooperative, but there is much individual variation. *Chembadavars* are potentially the most influential, particulary for the vulnerable preschool children. However they are usually already so succsssful and prosperous that it may be difficult to motivate them to change.

The practices of the *mandhrakarars* are harmless and need not be prevented except in so far as they delay more effective treatment in urgent cases (e. g. snake bite).

Since practically all traditional practitioners are only important for specific diseases it would only be necessary to educate them about the practiçular diseases.

Environmental sanitation

Hygiene. Ninety-six to 94 per cent of respondents know that

the food should be covered in order to keep it clean and free from germs. The only other measure suggested is to eat the food when hot (9-1 per cent of respondents). For drinking water 90 per cent to 86 per cent also say to cover it, but 12 to 10 per cent say to boil it, 7to 5 per cent to filter it and 4 to 5 per cent to add medicine to the well. To keep the body clean almost all answer in terms of a bath, 60 to 84 per cent say daily bath. For the surroundings 93 to 96 per cent say to cleam every day; 18 per cent in area D also say to mop the floor every day.

Latrine (Table 11; p. 33). More than one-third say that a latrine is necessary. Various reasons are given, convenience and privacy are mentioned most (10-14 per cent), a few say it is good for sanitation or avoid spreading diseases (see Table 11) or to lead a healthy life (8 per cent). Reasons for not having one include "we use the fields (11-24 per cent), bad smell (12-32 per cent), dirty near the house (2-10 per cent) or not necessary (8-13 per cent). Only 5 2 per cent in Anaicut Block and 2 7 per cent in K. V. Kuppam Block actually have a latrine, mostly in the larger villages. Most of these are used by the whole family but some are used by women only. Nearly all are said to be always used.

More people in the service area said it is necessary to have a latrine and this difference was highly siginificant ($p<$ 001). More also give the reasons that it is good for sanitation. (significant $p<.01$) and that it avoids spreading disease (not significant).

Environment. Surprisingly, nearly half of the respondents know that if there are pools of water near the house, mosquitoes will breed and cause disease. More people in the service area knew that pools of water lead to breeding of mosquitoes and flies which cause disease (difference highly significant, $p<.001$). Most would prevent it by filling the place with earth, or draining the water away. Only 0.7 per cent in Anaicut Block mentioned a soakage pit.

To get rid of rubbish most would dispose of it in their fields in a distant place, or in a compost pit. The reason most commonly given is to obtain good manure, but to have clean surroundings is also mentioned.

Attitudes (Tables 12-13; pp. 34-35). Unfortunately it was found that the different interviewers introduced their own basis in the attitude scores. Since for different *panchayats*, different proportions of samples were done by different interviewers, it is not possible to compare results in the different *panchayats* of areas D and E. For total results in each block, the different topics can be compared because there will be the same distribution of interviewers for each topic. Even here there will be some error, as bias varied with topic, but on the whole the different biases should cancel each other out.

For areas A, B, C the same two interviewed all men and women throughout, so that *different panchyats* can be compared with each other.

Attitude score can vary from −100 to +100 per cent. Results are shown in Tables 12 and 13. Scores for PHC, allopathic medicine and immunisation are positive in all areas, but for latrines are negative in all except service area A. Area E, K. V. Kuppam Block, has more positive attitudes than other 'non service' areas (except for latrine) and attitudes for some topics approach those in service area A. This may be because there is actially some C.M.C, service in a part of the Block or it may be due to differences in the effectiveness of the government services in different blocks.

For leprosy the score is only positive in area E, K. V. Kuppam Block and is negative in all other areas. The difference is highly siginificant, $p < .001$. This difference is probably due to the presence of the SET Units under the SLRT Sanatorium. Karigiri. However in spite of this more positive attitude there is no siginificant difference in knowledge in this block (see above).

Attitudes are most positive in the service area A than in the control area for all topics, but especially for antental care and immunisation. These differences are highly significant ($p < .001$) for allopathic medicine, immunisation, and antenatal care; siginificant ($p < .05$) for tuberbulosis, and probably significant ($p < 05$) for primary health centre, latrine and family planning, and not significant for leprosy.

Table 15 shows the difference in attitude scores for different parts of area A. The most positive attitudes are in Edayanchat and Thuthipet *panchayats* (differences all highly significant, $p < .001$). Edayanchat is close to the Rural Hospital and the Christian Medical College and has had service for a long time. (Pennathur has also had service for about the same time but is further away, and also has a less stable leadership structure.) Thuthipet is the area where the special nutrition project was carried out (Matthews *et al* 1977); this will be discussed in another paper.

Discussion

Village people have their own beliefs about causes of diseases and treatment, and for certain diseases these beliefs are quite different from the allopathic system of medicine. Their system includes diseases which only partially overlap with allopathic diseases; their concept of a disease may be sub-divided into several different diseases. However, with regard to prevention there is very little knowledge of any kind.

For most diseases allopathic treatment is preferred, but for certain diseases, mostly where there is no clear allopathic equivalent,

traditional treatment is preferred. For diseases believed to be caused by goddesses, spiritual treatment or no treatment is given. Traditional treatment is particularly important for children's diseases including some of those which lead to most deaths in preschool children. Reasons for preference for traditional treatment have been discussed elsewhere (Matthews 1979). This question is also discussed by Marriott (1955), Carstairs (1955), Hasan (1967), Ishvaran (1968) and Djurfeldt and Lindberg (1976). The cultural and social gap between the allopathic doctor and patient is one of the most important factors.

Because of this cultural and social gap, there is practically no communication between doctor and patient about the cause and nature of the disease. For better utilisation of services, this situation needs to be improved. Doctors should encourage patients to ask questions about their diseases, and should be able to provide simple explanations in terms which are relevant to the patient. This will only be possible if the doctors themselves know something about the patients' beliefs. If the doctors feel that they do not have time to do this, it should be the designated function of some other health worker. There are not enough trained health educators available to do this, but it could also be done by other categories of workers who are given some training and who are interested in trying to establish effective communication with the patient. It fact it may be an advantage if it is done by someone who is not highly trained but is more from the same background as the patient as this will help communication. Even if such a person may occasionally make mistakes the result will probably be more effective than than the present system of complete lack of communication. Possible use of traditional practitioners should also be considered, although there may be some difficulties involved.

Even after many years of service in area A, the differences in knowledge, attitude and practice are rather small. A few individuals seen to have been educated, but for most topics there is not very much change for the community as a whole. In fact in most of the health education given an individual approach was adopted, except for certain special projects, such as that for nutrition. However, in the leprosy health education project (Matthews, Jesudasan, Selvapandian and Benjamin, forthcoming), which was carried out after the survey reported in this paper, there was a considerable improvement in knowledge and attitude. In this project (as in the nutrition project) behavioural science principles were followed and and group methods and leadership training (Jesudasan and Matthews 1978) were used to educate the whole community, not just individuals.

The results presented here indicate how hard it is to change people's established customs and beliefs. Even after years of contact

with allopathic medical services, the community still believes in the traditional causes of diseases and traditional treatment for certain diseases. This may be partly due to a lack of communication between doctor and patient, since the doctor is not sufficently aware of the patients beliefs and attitudes, this has already been discussed above and elsewhere (Matthews 1979; Matthews 1975). Nevertheless some improvement is seen. The greatest effect seems to be on knowledge, attitude and practice of immunisation. Immunisation requires less effort on the part of the people than many other chages (e. g. feeding of preschool children), and does not usually contadict any traditional beliefs.

Some differences were found between all three areas in Kanniambadi Block (A,B.C) and other two blocks (D and E). Occasionally this may be due to interviewer differences, or it may be due to local variations as these areas were separated geographically. Or it is possible that in some cases changes brought about in the service area spread to the nearby control area also.

Investment in terms of numbers of staff and money spent has been fairly high, but outcomes are not very impressive. One difficulty is combining service with teaching. For example the health insurance scheme was not successful in the rural area because it ran at a large deficit. In the urban area however, it became self-sufficient. The difference is probably due to the fact that in the urban area all patients were seen by one senior doctor, whereas in the rural area they were seen mainly by interns who, due to lack of experience often prescribed unnecessarily expensive drugs. Also nurses could cover only a smaller area because of the demands of teaching. A more suitable teaching method has yet to be worked out, where the students become an asset to the service programme rather than a liability.

Negative results are often suppressed or at least not published. The present results while not entirely negative are not as positive as had been hoped. Nevertheless it seems worth making them known as something which can be compared with the results of others, and with results in the same department in the future. In fact thorough systematic evaluation is seldom attempted in community health work, and such data have not been published for other projects, so no comparison can be made. If the present paper challenges others to make the attempt to evaluate their work it may be worth while. Subjective impressions of the value of projects and programmes are not adequate. Only if we really evaluate the effect on the community, and attempt to find out what will produce the greatest effect, will we able to improve our methods and give the practice of community health a sound scientific basis. As already mentioned this will also be discussed in another paper. It has been shown that application of

behavioural science principles can be used to obtain better results.

Summary and conclusions

Village people have their own beliefs about the causes and treatment of diseases,which are similar to those found in an earlier more detailed study in one village. For most diseases allopathic treatment is preferred, and attitudes to allopathic medicine and the primary health centre are mostly positive. But for certain diseases traditional or spiritual methods are preferred and these are mostly those diseases for which there is no clear allopathic equivalent to the traditional concept, or which are believed to be caused by the traditional concept, or which are believed to be caused by goddesses or spirits. These diseases include many of those which the villagers believe to be the causes of death in small children.

In order to reduce infant and preschool mortality it may be important to study the villagers beliefs about these diseases and find their allopathic equivalents, so that effective health education may lead to change in treatment sought. A variety of traditional practitioners and spiritual healers are available to the villagers. Local healers include dais (untrained midwives) and *mandhrakarars* (who chant prayers). Villagers are aware of and visit well known traditional practitioners in Vellore and other places, even though this involves travelling some distance. The influence of these practitioners might be used to advantage, if they can be suitably educated and involved in health programmes. Since it is these people often who treat the child who is seriously ill, it is important to influence them and improve their methods.

Although attitudes to allopathic medicine are positive, there seems to be little communication between doctor and patient and particularly no discussion of the cause and nature of the disease. This can probably only be improved if doctors take some interest in the beliefs of the patients. Knowledge of preventive measures is particularly low, and for this much education is required. Nevertheless attitudes towards immunisation are positive. There is some knowledge of environmental sanitation and hygiene but it is not always applied.

Suggestions for successful health education may include the following:

1. More understanding of the village people's beliefs about health and disease, by every member of the health team.
2. More explanation to patients of the cause and nature of the disease in simple, relevant terms.

3. Use of traditional practitioners, through educating them and involving them in health programmes.
4. More knowledge about preventive measures should be given by using mass media, since even initial awareness is lacking. This can be followed up with small group meetings of leaders and others.
5. Use of learning experiences as far as possible, (see forthcoming paper 3). Other suggestions have been given in a previous publication (Matthews 1975).

REFERENCES

Djurfeldt, G. and S. Lindberg, *Pills Against Poverty* (New Delhi: Oxford & IBH, 1976).

Hasan, K.A., *The Cultural Frontier of Health in Village India* (Bombay: Manaktalas, 1967).

Ishvaran, K., *Shivapur a South Indian Village* (London: Routledge and Kegan Paul, 1968).

Jadhav, M. and C.M.E. Matthews, "Investigations into the Clinical and Aetiological Aspects of Sevappu: A Fatal Neonatal Syndrome Reported from the North Arcot Distric of Tamil Nadu, Souh India." Paper read at the 6th National Conference of Paediatrics, Srinagar, 1976.

Jesudasan, M. and C.M.E. Matthews, "Involvement of Community Leaders in Leprosy Control. Leaders Training Camps: An Evalvation Study," *Journal of Rehabilitation in Asia*; 24 (July, 1978).

Kutumbiah, P., *Ancient Indian Medicine* (Bombay: Orient Longmans, 1969).

Likert R., "The Method of Constructing an Attitude Scale," in *Readings in Attitudes Theory and Measurement*, M. Fishbein (ed.), (New York; Wiley, 1967), pp. 90-95.

Mahadevan, Pillai K. and P. R. Dutt, "Sociology of Medicine and Social Change in India," *Bulletin of Gandhigram Institute for Rural Health and Family Planning*, 10 (1969), 1976.

Marriott, M., "Western Medicine in a Village of Northern India," in B. D. Paul (ed,), *Health, Culture and Community* (New York: Russell Sage Foundation, 1955), p. 239.

Matthews, C.M.E., "A Theory for Predicting Behaviour Change," *International Journal of Health and Education*, Supplement to volume 18, 1975.

———. *Health and Culture in a South Indian Village* (New Delhi: Sterling, 1979).

Matthews, C.M.E., M. Jesudasan, A. J. Selvapandian and V. Benjamin *A Leprosy Health Education Project*, forthcoming.

Selvapandian, A. J., J. Richard and T. F. Wilson, "Attitude of people Towards Leprosy: Urban and Rural Areas—A Comparative Study," *Journal of Rehabilitation in Asia*, (April 1972).

Selvapandian, A. J., Leprosy Research and Rehabilitation Project. Final Report. (Vellore: Christan Medical College, 1975).

Table 1: Kanniambadi Block

Village and Area	Period of Service	Type of Service	Date of Survey	Population
Service - A				
Edayanchat	1955	PHN visiting daily MCH clinic	11.74-2.75	2,031
Thuthipet panchayat	1958-70 6.1974	PHN alternative days Special nutrition project	3.76-6.76 & 9.77	1,178
Pennathur	1955	PHN daily, MCH clinic	7.75-12.75	2,088
Kattuputhur	1968	PHN alternate days	11.75-3.76	1,253
Allivaram	1968	PHN alternate days	1.76-6.76	1,011
				7,561
Service - B				
Soudalipuram	1.70-12.72	PHN Alternate days	11.75-3.76	755
Veppampet	6.3.75	PHN daily, MCH clinic	4.75-12.75	1,829
Chinnapalam-pakkam	12.9.74	Under 5 yrs clinic every 2 weeks only	2.75-6.75	1,785
				4,369
Control Area				
Kannadipalayam	—	—	4 & 5.77 and 1.77	594
Kesavapuram	—	—	4.76 & 4.77-7.77	529
Mettupalayam	—	—	7.9.76 and 1-2.77	782
Addukkambarai	—	—	1.76	599
Sethupalayam	—	—	11.76 & 3.77-4.77	897
Nelvoy	—	—	3-8.77 and 10.77	1,400
3holavaram	—	—	12.74-1.75	2,463
				7,264

Table 2

Area	Population	Average family size	Pre-school children per cent of population	Birth rate	Death rate	Mean income per *family per year* (Census)	(KAP sample)	Mean income per capita per year (Census)	Mean Assets (KAP sample)	Per cent of Coolies
A	7,561	4.9	12.1	34.4	11 9	3,090	2,500	630	6,700	15.1
B	4,369	4.9	12.5	25.1	10.7	2,850	2,440	582	7.700	19.5
C	7,264	5.0	13.3	27.9	9.3	2,900	2,440	580	8,100	19.1
C*	4,801	5.0	13.1	26.6	11.4	2,900	2,440	580	7,240	19.3
D	84,000	—	—	—	—	—	2,700	—	12,200	—
E	90,000	—	—	—	—	—	2.810	—	8.900	—

* Excluding Sholavaram

Table 3

Area	Village	Date	Birth rate	Population
A	Edayanchat	2.76-3.77	21.1	2031
	,,	12.74-12.75	27.0	1999
	,,	1.73-12.73	28.5	1992
A	Pennathur	4.75-4.76	23.9	2088
	,,	4.75.3.75	25.5	2011
	,,	10.72-9.73	23.3	2022
B	Veppampet	2.75-2.76	24.1	1829
	,,	10.73-10.74	35.5	1805
B	Chinnapalampakkam	11.75-11.76	24.6	1785
	,,	9.73-8.74	28.2	1771
C	Nelvoy	1.76-12.76	28.6	1400
	,,	1.75-12.75	21.0	1380
	,,	1.74-12.74	32.4	1358

Table 4: Symptoms

Disease	Symptoms	Per cent mentioned	Symptoms
		D*	E*
Janni[1]	Body chilled, cold or shivering	36.2	33.1
	Unconsciousness	19.6	23.4
	Becomes mad	13.8	6.6
	Fever	8.1	8.1
	Don't know	27.5	41.2
Isivujanni[2]	Fits	47.4	39.3
	Breathing difficulty	6.5	0.2
	Cannot move arm or leg	0.1	5.3
	Don't know	43.4	53.0
No blood[3]	Weak or thin body	45.6	45.5
	Pale body, face, eyes	31.0	16.7
	Can't work	12.5	20.8
	Don't know	35.3	37.4
Udhakamalai[4]	Swelling of arms, legs, face	75.0	71.3
	Yellow body, eyes	17.0	7.2
	Pale body, eyes, bloodlessness	21.0	12.9
	Don't know	19.4	22.4
Tuberculosis	Thin body	45.6	29.9
	Cough	26.1	33.5
	Weakness	21.1	10.5
	Don't know	31.0	30.0
Leprosy	Crippled hands and feet	53.0	27.5
	Shrinking of fingers	19.8	26.2
	Ulcers and wounds	10.7	3.8
	Cracks in palms and feet	1.1	19.3
	Swelling of body	10.2	5.7
	Patches	8.0	11.4
	Ugly face	7.3	4.1
	Don't know	22.4	31.1

1. Includes several distinct diseases. See table 5 for causes
2. Nearest term for tetanus
3. Nearest term for marasmus; may also mean anaemia
4. Nearest term for Kwashiorkor; may also mean anaemia with oedema

*=Anaicut Block; E=K.V. Kuppam Block

Table 5 Cause

Disease	Cause	Per cent mentioned cause	
		D	E
Fever	Cold, wet	52.2	39.5
	Change of season or of water	14.9	9.4
	Cold food	9.5	6.2
	Hard work and tiredness	12.7	8.5
	Don't know	18.9	35.7
Typhoid	Cold, head cold	5.2	4.3
	Mosquitoes	3.1	2.4
	Infectious disease	3.2	1.1
	Dirty condition	2.5	1.6
	Germs	1.2	2.4
	Don't know	74.5	86.0
Cholera	Dirty surroundings	23.2	22.9
	Goddess Mariamma	13.1	5.1
	Bad food	7.4	8.2
	Poochi	3.9	3.5
	Don't know	44.0	54.8
Measles	Ammai (Goddess)	50.2	30.0
	Infection	5.9	3.0
	Heat	5.3	3.4
	Don't know	35.8	62.2
Diarrhoea			
Bedhi	Bad Food	29.2	20.3
	Indigestion	22.0	31.6
	Eating forbidden food	12.9	8.5
	Excessive eating	7.9	7.4
	Heat	7.5	6.8
	Kudalettram	7.3	3.9
	Don't know	15.0	21.8
Mandhai	Mother of breast feeding baby eating forbidden food	60.0	51.6
	Eating groundnuts	8.2	1.0
	Eating bad food	5.8	9.6
	Don't know	23.5	32.6

Table 5 (Contd.)

Disease	Cause	Per cent mentioned cause	
Dhosham	Mother of breast feeding baby seeing aborted woman	56 0	62.5
	Mother of breast feeding baby seeing dead dog or cat	6.0	1.9
	Don't know	23.5	29.3
Dysentery	*Heat or excessive heat*	76.0	77.7
	Hot foods	8.9	4 3
	Don't know	12:9	16.8
Worms	Eating uncooked rice	40.6	30.7
	Eating sweet things	18.2	15.3
	Eating earth	8.1	5 0
	Not taking purgative	7.5	4.4
	Dirt in stomach	5.4	6.2
	Bad food	6 7	5 7
	Don't know	34.3	39.1
Sevappu (in baby)	Pregnant woman eating forbidden food	18.3	22.3
	Hereditary	8.9	3.7
	Infectious	7.5	4.3
	Don't know	56.0	63.9
Janni[1]	a) Sexual intercourse during menstruation	25.3	19.4
	b) Excessive cold	22.6	19.4
	b) Drinking cold water or cold bath after delivery	18.4	22.0
	b) Cold food	4.7	2.0
	Don't know	28.7	43.4
Isivujanni	Cold and cold food	11.0	17.7
	High fever	1.2	3.5
	Weakness of nerves	3.0	3.6
	Don't know	70.5	85.0
Whooping cough	Infection	31.5	17.7
	Ammai (Goddess)	9.8	1.8
	Heat	5.6	15.1
	Don't know	46.2	62.4
Scabies	Heat	48.4	52.7
	No daily bath	15.2	6.9
	Infection	5.9	4.5
	Don't know	22.0	30.5

1. Two diseases with different causes=a) and b).

Table 5 (Contd.)

Diseases	Cause	Per cent mentioned cause	
Raththam illadha	Not eating nutritious food	17.9	12.1
	Not eating enough food	10.1	14.4
	Body weakness	8.1	5.1
	Don't know	52.0	65.2
Udhukamalai	Eating uncooked rice and earth when young or eating ash	47.0	44.4
	Bad blood	5.2	3.4
	Don't know	40.6	44.2
Mouth sore	Eating sweet things	45.6	34.0
	Excessive heat	33.7	30.7
	Wound in stomach (ulcer)	10.0	11.3
	Don't know	13.5	21.5
Tuberculosis	Infection	6.5	3.1
	Weakness	3.9	0.2
	Hereditary	3.2	1.1
	Don't know	70.0	87.4
Leprosy	Infection	13.1	8.0
	Hereditary	10.1	5.0
	Excessive sexual intercourse	4.9	3.4
	Sins	2.7	1.6
	Don't know	69.0	80.3
Smallpox	Not asked; (Universally believed to be due to Goddess Mariamma)		

Table 6: Prevention

Disease	Prevention	Per cent mentioned prevention				
		A	B	C	D	E
Typhoid	*Immunisation*	17.7	13.5	5.1	2.9	7.3
	Clean rurroundings	2.3	0.7	5.2	2.1	1.6
	No prevention	5.0	2.8	—	44.0	24.1
	Don't know	67.3	75.9	88.0	47.2	63.8
Cholera	Immunisation/Injection	—	—	—	26.6	30.3
	Clean snrroundings	—	—	—	6.0	6.2
	Don't know	—	—	—	23.6	46.0
Measles	Immunisation	19.5	17.3	9.7	7.0	6.1
	No prevention	27.7	22.7	14.4	58.8	25 4
	Don't know	37.7	54.6	71.3	33.4	66.9
Diarrhoea *Bedhi*	Good & clean food	—	—	—	4.1	4.8
	No prevention	—	—	—	60.2	34.8
	Don't know	—	—	—	34.7	58.7
Mandhai	Avoid forbidden food	—	—	—	13.8	12.1
	No prevention	—	—	—	54.2	33.3
	Don't know	—	—	—	30.6	53.7
Dhosham	Avoid seeing aborted woman	—	—	—	3.6	1.5
	Mandhrams or "thayittu"	—	—	—	3.2	5 0
	No prevention	—	—	—	57.2	26.3
	Don't know	—	—	—	36 0	65.5
Dysentary	Eat cold food	—	—	—	4.2	6.5
	Avoid hot food	—	—	—	2.2	—
	No prevention	—	—	—	60.0	33.9
	Don't know	—	—	—	33.5	58.9
Worms	Frequent purgative	—	—	—	8.1	5 5
	Avoid eating uncooked rice	—	—	—	4 8	2.7
	No prevention	—	—	—	51.8	32.7
	Don't know	—	—	—	33.0	57.5
Janni	Avoid intercourse during menstruation	—	—	—	3.2	2.5
	Avoid cold water and cold food	—	—	—	4.8	0.4
	Immunisation	—	—	—	0 6	0.3
	No prevention	—	—	—	51.9	30 5
	Don't know	—	—	—	39.2	64.5

Table 6 (Contd.)

Disease	Prevention	Per cent mentioned prevention				
Isivujanni	Avoid intercourse during menstruation	—	0.7	0.9	0.8	0.1
	Immunisation	7.7	—	2.3	0.6	0.7
	No prevention	5.9	2.1	—	50.8	16.4
	Don't know	80.5	95.0	94.4	47.0	82.1
Whooping Cough	*Immunisation/Injection*	*50.9*	*37.6*	*26.9*	*4.0*	*14.8*
	write name on drumstick tree	2.3	2.8	5.6	2.4	1.0
	No prevention	7.3	7.1	2.3	51.0	29.6
	Don't know	31.8	45.4	49.1	36.5	62.6
Raththam Illadha	Taking good food, *fruit or milk*	48.2	26.2	36 6	*15.6*	*15.0*
	No prevention	4.5	0.7	0.9	46.5	24.1
	Don't know	38.2	66.0	49.1	35.4	36.8
Udhukamalai	Good medical care	—	—	—	1.9	—
	Avoid uncooked rice, ash	—	—	—	1.6	0.3
	No prevention	—	—	—	47.0	20.4
	Don't know	—	—	—	*49.0*	*78.9*
Scabies	Daily bath with soap	—	—	—	7.3	4.4
	No prevention	—	—	—	51.0	29.6
	Don't know	—	—	—	38.9	62.6
Mouth sore	Avoid sweet things	—	—	—	2.7	0.5
	Eat cold food often	—	—	—	1 9	0.5
	Avoid hot food	—	—	—	1.0	0.2
	No prevention	—	—	—	50.5	28.4
	Don't know	—	—	—	36.0	53.5
Tuberculosis	Injection	9.1	5 6	4.6	1.2	0.1
	Nutritious food	5.0	2.1	1.9	1.0	0.2
	No prevention	14.1	9.9	1.9	59.8	15.5
	Don't know	66.8	73.0	89 8	48.4	83.3
Leprosy	Isolation	—	—	—	0 8	0.3
	No prevention	—	—	—	50 2	31.9
	Don't know	—	—	—	48.4	67.1
Smallpox	Vaccination/Injection	—	—	—	6.4	8.1
	No prevention	—	—	—	65.0	24.3
	Don't know	—	—	—	28.9	67.8

Table 7 (a)

What is preventive injection?	Per cent of respondents				
	A	B	C	D	E
Injection to prevent disease	63.2	47.5	46.0	30.5	44.2
Don't know	17.7	37.6	39.8	66.0	54.6
Injection for children	13.2	11.3	11.6	—	—
Does it prevent the disease before it comes ?					
Yes	67.3	52.5	48.1	29.0	42.7
No	6.8	0.7	2.3	1.3	0.4
Don't know	26.4	46.8	49.5	2.7	2.7
Not applicable	—	—	—	66 0	53.9

Table 7 (b)

What disease can be prevented by preventive injection ?	Per cent of respondents				
	A	B	C	D	E
Ammai (Smallpox etc.)	—	—	—	18.2	18.9
Cholera	—	—	—	17.7	20.2
Whooping cough	40 9	28.4	24.1	6.2	22.3
Fever	11.4	9 9	2 8	4 6	5.7
Typhoid	—	—	—	3 6	2.7
Fits, tetanus	8.2	2 1	2 3	3.3	5.6
Tuberculosis	9.1	7.1	5.1	—	—
Don't know	—	—	—	3.0	2.6
Not applicable	—	—	—	68.7	54.6

Table 7 (c)

Have your children had any preventive Injections?	Per cent of respondents				
	A	B	C	D	E
Yes	50.5	27.7	24.1	21.0	31.4
No	23.6	38.3	36.1	72.0	66.2
Don't know	10.9	23.4	13.0	4.9	2.8
Not applicable	15.0	10.6	26.9	1.3	0.4
For which diseases ?					
Ammai (Smallpox)	12.7	4.3	4.6	14.9	14.8
Whooping Cough	27.3	12.8	10.2	5.1	14.4
Cholera	—	—	—	3.2	4.9
Fits	—	—	—	1.4	0.3
Typhoid	—	—	—	1.1	0.7
Fever	—	—	—	0.8	1.2
Tuberculosis	—	—	—	0.5	0.5
Don't know	—	—	—	1.6	5.3
Not applicable	—	—	—	78.2	66.6

Table 8: Reported Occurence of Diseases

Disease	Per cent had it in family				
	A	B	C	D	E
Fever	—	—	—	77.5	88.1
Typhoid	—	—	—	17.7	20.1
Cholera	—	—	—	12.8	6.9
Measles	—	—	—	63.0	64.3
Diarrhoea					
Bedhi	—	—	—	54.4	60.8
Mandhai	—	—	—	53.0	58.9
Dhosham	—	—	—	59.8	65.4
Dysentery	—	—	—	52.0	61.7
Worms	—	—	—	35.0	34.9
Sevappu	—	—	—	27.5	26.1
Janni	—	—	—	16.7	11.9
Isivujanni	—	—	—	9.3	8.7
Whooping cough	16.4	24.8	21.3	43.4	35.6
Raththam illadha	4.5	9.9	4.2	21.1	17.8
Scabies	—	—	—	41.4	37.0
Udhukamalai	—	—	—	18.6	12.1
Mouth sore	—	—	—	63.0	64.5
Tuberculosis	—	—	—	8.2	5.4
Leprosy	—	—	—	4.6	3.4

Table 9: Treatment (Percentage mentioned different kinds of treatment*)

Mainly allopathic	*Allopathic*		
Fever	71-87		
Typhoid	83-91		
Cholera	80-90		
Janni	74-83		
Isivujanni	70-78		
Tuberculosis	82-90		
Leprosy	57-87		
No blood	47-84		
Allopathic or Traditional		*Traditional*	
Bedhi (diarrhoea)	37-59	18-41	
Scabies	43-75	18-35	
Dysentery	44-65	18-34	
Worms	47-65	4-22	
Mainly traditional	*Traditional+*	*Allopathic*	
Mandhai	35-71	8-27	
Sevappu	56-68	7-13	
Udhukamalai	46-72	17-53	
Whooping Cough	35-55	27-48	
Spiritual or traditional	*Spiritual*	*Traditional@*	
Dhosham	31-62	24-63	
Traditional or home or allopathic	*Traditional*	*Home*	*Allopathic*
Mouth sore	34-77	5-43	12-30
No Treatment or home	*No treatment*	*Home*	
Measles	16-63	26-75	

*In order to simplify the table only the range of values for areas A to E is given. Separate values for each can be given to any one who is interested.

+ Including *Chembadavars*

@ Mainly *Chembadavars*

Table 10

	Percentage of respondents	
Before you leave the doctor, what do you ask him?	D	E
When to come again	35.4	41.6
How and when to take medicine	23.8	27.5
What food to take	17.0	18.4
When will disease be cured	14.3	4.4
What disease do I have?	1.7	2.4
Cause of disease and prevention	0.2	6.7
Won't ask anything	19.2	25.9
Have not been to a doctor	6.7	5.7
What does he tell you?		
Says to come after 2 or 3 days	23.1	26.3
Gives direction about food	19.4	15.0
Says to come again if not feeling well	12.2	15.2
Prescribes the medicine	7.4	10.6
Says disease will be cured soon	5.7	3.2
Describes what disease is	0.2	2.0
Cause and prevention	—	9.8
Not applicable	25.9	32.1

Table 11

	Percentage of respondents				
Is it necessary to have a latrine?	A	B	C	D	E
Yes	64.1	54.6	46.7	35.4	37.2
No	35.9	45.4	53.7	64.5	62.8
*If yes, why?**					
Good for sanitation	18.6	7.8	9.7	6.0	1.6
Avoids spreading diseases	12.3	11.3	8.8	3.1	2.6

* For other reasons given for yes and no replies, see text.

Table 12: Percentage of Attitudes Score

Village and Area	PHC	Allopathic medicine	Immunisation	Tuberculosis treatment	Leprosy treatment	Latrine
Total area						
A	30.3	40.6	58.7	18.5	0.2	8.9
B	14.8	31.2	27.6	2.8	-12.9	-13.0
C	17.7	26.4	31.8	11.9	5.3	-23.4
D	16.5	15.6	18.6	-7.3	-0.3	-16.7
E	28.6	33.3	49.5	15.6	20 0	-20.4

Table 13: Percentage of Attitude Score

Village and Area	PHC	Allopathic medicine	Immunisation	Tuberculosis treatment	Leprosy	Latrine
Service A						
Edayanchat	51.5[1]	55.3	80.9	38.3	25.8	40.5
Thuthipet Panchayat	60.8[1]	50.0	62.5	22.9	3.8	1.7
Pennathur	8.4	37.7	46.3	9.0	-6.4	9.2
Kattuputhur	18.6[1]	32.4	62.8	22.0	-11.5	-25.3
Allivaram	19.2[1]	17.5	32.5	7.5	-25.4	-4.2
Service B						
Soudalipuram[3]	16.4	49.3	42.8	24.3	5.3	2.6
Veppampet	22.8	40.2	32.8	14.5	-19.9	-12.9
Chinnapalambakkam	5.3	18.2	18.9	-13.4	-12.1	-17.4
Control Area						
Kannadipalayam[2]	-2.4	27.4	8.3	4.8	0.0	-45.2
Kesavapuram[2]	4.5	27.5	31.7	-4.2	-24.2	-29.2
Mettupalayam[2]	-1.7	40.9	66.5	33.0	1.1	-21.0
Addukambarai	2.9	40.4	43.4	33.1	10.3	8.8
Sathupalayam	28.6	20.1	32.6	12.5	9.4	-15.6
Nelvoy	30.1	23.4	24.0	7.4	6.7	-19.6
Sholavaram	24.5	22.5	29.2	8.3	-13.2	-29.2

1. Attitude towards CMC, Rural Health Centre, Bagayam, as this is nearer to these villages than the primary Health Centre.
2. Pennathur Panchayat, non-service area.
3. Pennathur Panchayat.

Is Overcrowded Urban Living a Factor in Fertility Decisions? A Case Study of Metropolitan Calabar

Joseph Uyanga

Though the effects of housing conditions on human behaviour have been studied by urban planners and sociologists, there is relatively little research on the effects of housing density and perceived overcrowding conditions on fertility. This paper use the data of a survey of metropolitan Calabar, Nigeria, to study the relationship between overcrowding and decisions to limit family size. It was found that a high proportion of households living in overcrowded conditions still desired to have three more children, thus showing that, largely because of cultural reasons, actual urban residential overcrowding need not lead to a sharp decline in fertility levels.

Since the early part of this century average family sizes have fallen in most developed countries to a point where most couples can be expected to have at most three children in their lifetime. This is not the position in Africa. In many parts of Nigeria the average family size ranges from 4.8 to 8. The greatest proportion of the families in Nigeria have 5 to 6 children. A majority of these believes that 6 children in a family is the ideal, allowing for "up to God." Some studies have indicated the role of urban related variables in family size decisions. Such variables include the high cost of urban living, the educational background of urban dwellers and the relative cost and value of children (Uyanga 1976). This set of variables is underscored by cultural and economic considerations within the urban context.

This paper attempts to investigate the cultural perception of urban housing congestion in terms of space utilisation and overcrowding and to show how this can influence decisions to limit fertility. First, a review of the fertility situation in Nigeria will be made, with special reference to households in Calabar. Previous studies of overcrowding and fertility are discussed as they relate to both human and non-human communities. The third section will discuss overcrowding and

Dr. Joseph Uyanga is in the Department of Geography, University of Calabar, Nigeria.

how this is culturally perceived in Calabar. The findings of this analysis are then correlated with current fertility levels and family size decisions.

Fertility in Nigeria

The highest levels of fertility in Nigeria are found in a belt across the southern part of the country, being particularly high in areas of western Nigeria around Ibadan, and throughout eastern and southeastern Nigeria. In these areas, the average number of children ever born to most women by the end of their reproductive period, exceed seven (Uyanga 1977). Low fertility levels are found in parts of northern Nigeria, in areas of Hausa and Fulani settlements, and belts occupied by the nomadic Fulanis. In these areas the average number of children per woman is 5.5 children ever born.

Table 1: Family Size in Calabar (Southern Nigeria) by Age, Education, Occupation and Income

Age group	15-20	21-25	26-30	31-35	35-40	41-45	46+
Average live births	1 5	2.9	3.8	4.7	5.9	5.5	5.8
Protestant	1.6	2.7	3.0	4.6	5.2	5.1	5.6
Catholic	1.9	2.9	3.3	4.8	5.5	5 7	5.1
Formal Education Primary	1.2	2.7	3.5	4.1	4.9	5 6	6.2
Formal Education Secondary	1 1	2.7	3.3	4.6	5.0	5.3	5.7
Formal Education University	1 0	2.5	3 0	3 0	4.1	4.0	4.4
Illiterate	1.3	2 6	3.7	5.2	5.3	5.9	6.3
White Collar Job	1.5	2.4	3.9	4.9	4.7	5.7	5.6
Traders/Businessmen	1.3	2.5	3 4	5 1	5.4	5.3	4.5
Annual Income above N2,000*	1.2	2.6	3.8	4.7	5.2	5.0	5.3

The Efik-Ibibio people of southeastern Nigeria have extremely high fertility—about seven children per woman (Lucas 1974). Metropolitan Calabar is the most important town in southeastern Nigeria with a population of 79,410 in 1963.

Average family size in Calabar is presented by education, age, religion and occupation in table 1. This is based on the result of a sample survey of 562 households with all their children living with them (Uyanga 1978). The position is that average family size increases with the age of the household. It appears to be higher in the

* Nigerian pound

low income group, Catholics, and the illiterates. There are no significant differences in family size between the traders and the office workers. Households with formal education above secondary school tend to have smaller families. An average family in Calabar contains 4.2 children; the majority (63 per cent) contained 5.1 children. According to our assumption the number of children per family becomes a problem when they are overcrowded.

Observations on overcrowding and fertility

There is a proposition which states that as population density increases, people will be motivated to have smaller families on their own initiative, before cataclysmic Malthusian suffering begins. Obviously, high fertility may increase population density especially in the short run, but does high density have a feedback effect which reduces fertility itself?

In the non-human world a widely quoted study (Calhoun 1962) found that high density inhibits the fertility of rats. Experimentally it has been observed that the fertility of many other animals is affected by high density (Galle, Gove and McPherson 1972). Examples have been provided to show that high density causes a decline in the number of some animals (Pervins 1965), through a reduction in the number of the young ones capable of being carried (Christan and Davis 1964). Density can lead to a decline in fertility among elephants (Laws and Parker 1968). However, this relationship has not been sufficiently studied among human beings.

Density and fertility among human beings have been studied in many parts of the world, excluding Africa. Grauman (1965) found some inverse relationships between fertility and population density for India 1951, the Soviet Union 1926, some areas of Japan and Brazil 1925, and the USA 1950-60. Some of Grauman's data did not however show this general negative relationship. Heer's (1966) and Friedlander and Silver's (1967) studies also support the negative relationship of population density and fertility. Similar evidence has been registered for Taiwanese urban centers and some US cities (Heer and Boynton 1970). On the other hand, contrary evidence regarding density and fertility is given by Galle *et al* (1972). This study observed a positive correlation between the two variables. The alternative hypothesis provided by Galle's study is that high density will cause fertility to increase by contributing to hyper-sexuality. It must be noted, however, that somehow fertility and density may be positively correlated for spurious reasons, since the latter is measured in terms of the former.

The study of the relationship between fertility and density

in human populations is a highly complex matter since man possesses a higher capacity than animals in manipulating his environment and is less likely than animals to rely exclusively on instinct. Human crowding is less predicated on the way people design their habitat, and cannot be based merely on a simple association between persons and area units. Man for example, can construct on a plot of land either a high rise apartment building or several single family houses to serve an equal number of persons.

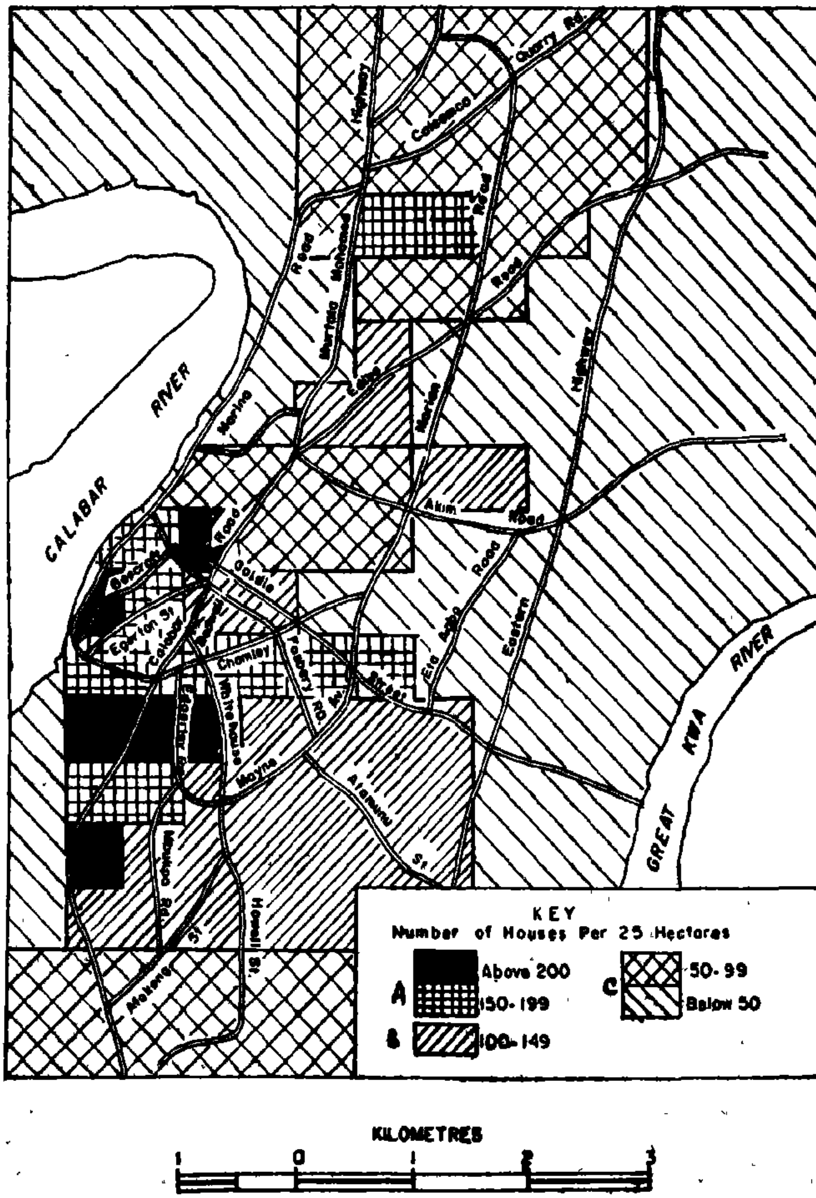
Again man has a subjective dimension which is likely to affect the significance of density and fertility. Certain housing configurations may appear less crowded than others, even though objective density is constant. For instance people may "feel" more crowed in apartment buildings because the residents are subjected to greater noise and more odour from neighbours, there is little space between dwelling units and sometimes there are shared toilets, staircases and corridors.

Even though the effects of housing conditions on human behaviour have been investigated by urban planners, architects and sociologists (Choldin and McGinty 1972; Fisher 1972; Michelson 1970), relatively little research has been carried out to study the effects of particular housing density and perceived overcrowded conditions on fertility, especially in Africa. Michelson (1970) reviews research findings which indicate that high rise buildings interfere with parental control over children and increase parental anxieties. In Israel, a study revealed that parents complain about small apartments. This study indicated parental desires for more children if they were provided with more space in which to raise them (Peled 1969). The general findings are that familes raising children prefer to avoid apartment living. The question to ask then is, would it not be likely that couples confined by a tight housing market to crowded living would decide to limit their family size by reduction in fertility?

The inter-relationship of human fertility and density is further complicated by the fact that man is able to solve problems. Increased population size may produce greater population density in the short run only to generate further effort to develop unused land or resources. On a macro level migration and colonisation are means of adapting to high population growth and density. On the micro level, families may add new rooms to their houses or move to new quarters. This is not always possible with very low income families or where the housing and land market is very tight. However if they work harder than they did before, they may offset the costs of larger family size. Crowding might thus motivate couples to build their own house, or rent more rooms.

An important aspect of the relationship between crowding and

FIG I. CALABAR BUILDING DENSITY PER 25 HECTARES



fertility is the perception and use of the amount of space available and the desire for a change in conditions of living space. In other words, impact of crowding on fertility needs to take into account the cultural appreciation and anticipation of crowding. People who enjoy satisfactory living space at present may refrain from having more children if they anticipate that no new living space will be available in the future. The possession of individual houses is likely to reduce

anticipated crowding. A closed or very tight housing market and scarcity of housing, would tend to increase the anticipation of crowding. It is not suggested here that density *per se* would lead to fertility reduction, but that there is likely to be a feeling of crowding with increasing density in the present which cannot be immediately reduced or avoided at the family level, and that this can create an incentive to reduce fertility especially in the lowest income group. An altruistic version of the model may be the high housing density leads to smaller families because parents do not wish to subject their children to unpleasant living conditions. An egoistic aspect of the model could be that crowding causes children to impinge much more upon their parents. In all cases overcrowding is assumed to increase the "cost" of having more children.[1]

Survey of Metropolitan Calabar

Metropolitan Calabar, in eastern Nigeria, provides ideal conditions for testing the hypothesis. Since its selection as State Capital in 1967, population growth in the city has been phenomenal. In 1963 the population of Calabar urban was 76,410; this had reached an estimated 119,000 by 1976, 34.2% of which was under ten years. The demand for housing has been exceedingly high and the result has been overcrowding in terms of high density of habitation, expressed as number of persons per surface unit. This situation is made worse by the very low percentage of built-up area in Calabar (Fig 1). The highest residential densities are found in the oldest section of the city and here also is the highest proportion of the low income citizens (Sule 1977). The general housing condition is summarised in Table 3 and Figure 2 (page 157).

The ideal experiment for testing this proposition would be the assignment of couples to unpleasantly dense physical locations. A more benign experiment might be the provision of quarters which would be comfortable for a small family but uncomfortable for a large one. Couples with more children will be provided with no more space than other couples. When a couple has an additional child, the family will be allocated no additional space. Thus the experiment would involve not only the initial degree of density but also the absence of alternative living arrangements in the present or the foreseeable future. If the experimental group were to reduce their fertility in comparison with that of a control group who were able to accommodate to increased family size, the hypothesis would be substantitated. Such an experiment would have many practical problems and is nearly impracticable in academic research.

1. *It is important to note that overcrowding can be culturally defined* (Sundaram 1977), and that most of the studies are based on Western and non-human models.

Table 2: Residential Floor Area in Calabar 1976

	A	B	C
Total Residential area built up (hectares)	451	510	282
Coverage (per cent of total residential area built up)	12	5	8
Percentage of two storey buildings	0.3	5	44
Total dwelling floor area (hectares)	46	29	26
Dwelling floor area per person	4.8	6.5	12.8

The analysis is addressed to a sample of urban dwellers who are in the bottom income bracket in Calabar, the population crowding characteristics of which are shown in Table 3. The survey of 410 households on which this paper is based had, observed that 82 per cent of the households in this category were localised in three areas within Metropolitan Calabar, namely, Efut Abua, Henshaw Town and Duke Town. The average annual income of the households interviewed was N850 and their average living and bedroom dimension was 24.3 square metres. Table 3 shows their actual and perceived crowding pattern.

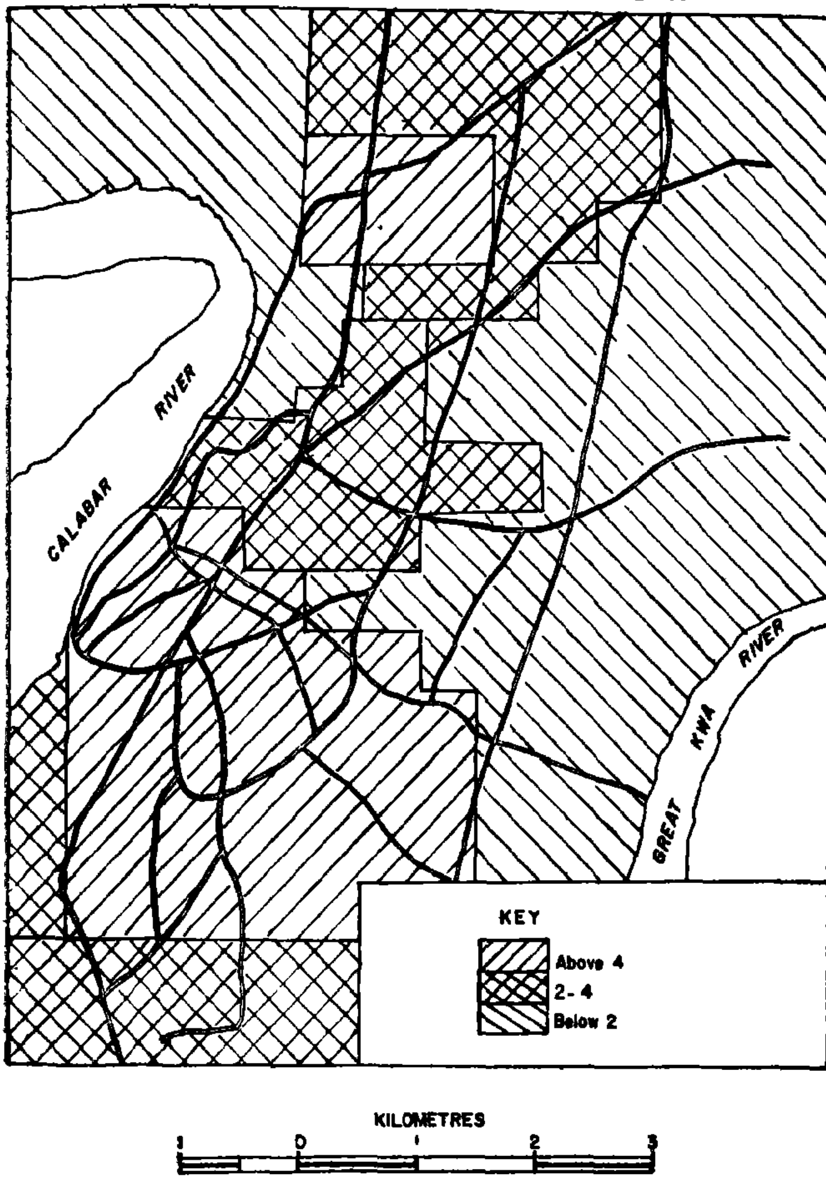
Table 3: The Pattern of Crowding in a Sample of Calabar Households

Persons per room	Households complaining of overcrowding	Households not complaining of overcrowding	Other households which "could not know"	Total No. in the Group	Percentage of households
Less than 2	2	13	2	17	4
2 to 4	30	39	2	71	15
4 to 5	181	52	17	250	61
Above 5	52	8	12	72	20
Total	265 (65%)	112 (27%)	33 (8%)	410	100

The sample reveals that 265 households (65 per cent) indicated that they had too many persons within their small living space, 27 per cent neither agreed nor disagreed with the suggestion. This observation raises the issue of the cultural context of overcrowding. It appears obvious that 4 to 5 persons on 24 square metres of living space (about 4.8 sq. metres per person), suggests overcrowding by national and international standards.

The situation is different in the rural areas in the study area where most persons virtually live outside the home in the verandahs, village playgrounds or sheds built outside the main buildings. Overcrowding at the urban level, particularly in the area studied, is at the individual and personal level. In other words, a person gets in very frequent contact with others, shares sleeping places, toilets and perhaps chairs.

FIG. 2 PERSONS PER ROOM IN CALABAR



Interpersonal press (Galle *et al* 1972) therefore is intensified. This situation is coupled with low income as already mentioned in the localities studied in Calabar, and with no foreseeable possibility of escape through individual or policy initiative.[2] With the high constantly rising house rents in Calabar (Sule 1977a), households in the

2. For a discussion of housing policy in Calabar, and how this caters only to the rich, see Sule (1977b).

study area are forced to take on the full burden of crowding that results from additional children. The problem is whether the inconveniences of interpersonal press are strong enough to affect decisions concerning additional children, where possibilities of better and more spacious accommodation are almost prohibitive due to a very tight urban housing market.

Because the experience of overcrowding is unique to, and is defined by, individual households, the mediating role of culture in relation to child ownership vis-a-vis living conditions is hypothesised. The hypothesis is tested in the subsample of 265 households which had perceived overcrowding in their living conditions. As shown in Table 4 only 21 per cent of the households living in perceived overcrowding had decided, somehow, to limit their family size.

Table 4: Responses to the question "In view of your present housing condition, do you intend to have more children than you have now knowing fully well that this will increase overcrowding?" (per cent)

	Households with less than two persons per room	Households with more than three persons per room
Yes, definitely	53.2	42.3
Not very many more	10.8	21.2
Probably, Yes	12.7	14.0
"It is left for God not me"	10.9	12.5
"We have no choice"	12.4	10.0

Table 5: Family Limitation Decisions: Responses to the question "How many more children do you want?" (per cent)

No. of children desired	Households with less than two persons per room	Households with more than two persons per room	Households with more than four children	Households with less than four children
1 more	9.0	13.0	16.5	12.8
2 "	18.4	25 2	11.2	20.6
3 "	36.3	11.5	9.0	26.2
4 "	10.0	9.4	10.1	10.4
5 "	5.5	7.5	8.8	7.0
6 and over	2.2	5.6	2.2	6.9
Don't know	9.2	13.3	19.2	5.3
What God brings	9.4	14.5	23.0	10.8

A higher proportion of the households with less than two persons per room (53.7 per cent) desired to have one to three more children; so also 49.7 per cent of those with more than two persons per room. It is interesting that a larger proportion of the latter, who were perceptually and actually overcrowded still wished to have over three more children. On the other hand, only 36.7 per cent of the households with more than four children, as against 59.6 per cent with less than four children, wished to have up to three more children. This again appears consistent with the earlier findings, except that it is not clear why a larger proportion of those who have had more than four children would want to have over four additional children. In fact more in this group wanted to have more of "what God brings" to them.

When cross-tabulated with their incomes, economic assessment of the value of children and perception of overcrowding (Table 6), this set of households exhibits a strong cultural inclination and tendency to child ownership.

Table 6 : Household Perception of Crowding and Desire for Children by Income group

Annual Income	No. of households	Average Rank of perception of overcrowding*	Desire to have more children*
N800 and over	76	2.3	2.8
N600 —N799	85	2.6	2.5
N500 —N599	58	2.4	2.3
Below —N500	47	1.9	2.4

*The index of assessment was based on a score of 3 to strong, 2 to moderate, and 1 to low perception and desire.

It may be that people in overcrowded situations because more often than not they are poor, are less likely to perceive the long range consequences of having more children. Their preceptions of themselves tend to lead to pessimism and passivity, stress, poor health, high degree of sexual stimulation and a likelihood of poor household management.

The situation in the study area is different from that recently discovered in Hong Kong. Within that culture where virtually everyone lives in an overcrowded environment, variations in crowding area are not related to severe emotional strain, but are related to reduced fertility levels, due to the difficulty of the care of, and control over, children.

The socio-economic relevance of this observation is that urban residential overcrowding in Calabar may be attended by several patho-

logical problems. In zone A, where the majority of the households actually have more than three persons per room, the incidence of broken homes, adultery, ineffectual parental care, juvenile delinquency, unemployment, poor health and insanitary environments was high (Sada 1972; Sule 1977a; Ekanem 1974). These, by themselves, may have variously affected fertility. It is suggested in this study that these socio-pathological conditions may be very significant as intervening variables influencing fertility rates when overcrowding is considered as the dependent variable. For instance, large and crowded urban families may lead to poverty. Response to adversity may not be a decrease in number but an increase because it is in numbers that poor people find security and the future hope for prosperity (Uyanga 1971b). Where, in this study, households were observed to have had less than two persons per room, almost 63 per cent of the residential property consisted of family houses. This ratio was 18 per cent in areas where households have more than two persons per room. In other words more of the latter household category lived in "rooming" houses than the former.

Conclusion

It does not appear from the study that overcrowding in the traditional urban housing context has led to any remarkable decline in fertility. Even though overcrowding is perceived by many of the households studied, the tendency to family limitation by way of response, is limited. For cultural reasons, the love of children in the study area overrides the love for living space in the crowded urban context, hence it is not popular to trade off the former for the latter.

References

Calhoun, J.B., "Population Density and Social Pathology," *Scientific American*, 206 (n.2, 1962), pp. 139-148.

Choldin, H. and M J. McGinty, "Bibliography: Population Density, Crowding and Social Relations," *Man Environment Systems*, 2 (n.3, 1972), pp. 131-58.

Christian, J.J and D.E. Davis, "Endocrines, Behaviour and Population," *Science*, 146, 1964, pp. 1550-60.

Ekanem, I.I., "Correlates of Fertility in Eastern Nigeria," *The Nigerian Journal of Economic and Social Studies*, 16 (n.1, 1974), pp. 115-128.

Friedlander, Stanley and Morris Silver, "A Quantitative Study of the Determinants of Fertility Behaviour," *Demography*, 4 (1967), pp. 30-70.

Galle, O,, W.R. Gove, and J.M. McPherson, "Population Density and Pathology: What are the Relations for Man," *Science*, 176 (April, 1972), pp. 23-30.

Grauman, J.V., "Fertility and Population Density: A Macrodemographic Approach." Paper presented at the 1965 meeting of the Population Association of America, at Chicago.

Heer, D.M., "Economic Development and Fertility," *Demography*, 3 (n.2, 1966), pp. 423-444.

Heer, D.M. and J.W. Boynton, "A Multivariate Regression Analysis of Differences in Fertility of United States Counties," *Social Biology*, 17 (September, 1970), pp. 180-194.

Laws, R.M. and I.S.C. Praker, "Recent Studies on Elephant Populations in East Africa," *Zoological Society of London Symposium*, 2. London: Nonacademic Press, 1968, pp. 319-359.

Lucas, D., "*A Demographic Study of a South Eastern Ibibio Village*. Lagos: University of Lagos, Human Resources Research Unit, Research Paper No. 6, 1974.

Michelson, W , *Man and This Urban Environment: A Sociological Approach*, Reading. Mass: Addison-Wesley, 1970.

Ministry of Health, Cross River State, *Statistical Digest*, Statistical Division, Ministry of Economic Development, Calabar, 1973, pp. 75-78.

Peled, Tsiyoma, "Problems and Attitudes in Family Planning: Summary of Main Findings," unpublished papers. Jerusalem: Israel Institute of Applied Social Research, 1960.

Pervins, C.M., "Population Fluctuations and Chetch Size in the Great Tit, Parus Major—1," *Journal of Animal Ecology*, 34 (October, 1965), pp. 601-647.

Sada, P.O., "Residential Land Use in Lagos: An Inquiry into the Relevance of Traditional Models," *African Urban Notes*, 6-7 (Winter, 1972), pp. 3-35.

Sovani, N.V., *Urbanisation and Urban India*. Bombay: Asia Publishing House, 1965, pp. 23-25.

Sule, R.A.O., "Housing Problems in Calabar: A Qualitative Assessment," unpublished paper. Calabar: University of Calabar, Department of Geography, 1977a.

———"An Assessment of the Nigerian Housing Policy," mimeo. Calabar: University of Calabar, Department of Geograpy, 1977b

Sundaram, K.V., *Urban and Regional Planning in India*. New Delhi: Vikas Publishing House, 1977.

Uyanga, J., "Family Size and Participation of Women in Labour Force: A Nigerian Case Study," *African Urban Notes*, 11 (n.2, 1976), pp. 59-72.

———"Socio-Economic Values in Fertility Behaviour of Nigerians" *Social Action*, 27 (n.4, October 1977), pp. 379-398.

———"Economic Determinants of Urban Family Size: A Case Study of Calabar," *Behavioural Sciences Journal*, 1 (n.1, 1978a), pp. 5-16.

———"The Value and Cost of Children as a Factor in Family Size in Southeastern Nigeria," *Population Studies*, 1978b, forthcoming.

Bonded Labour: A Review of Measures Adopted for its Abolition

K.C. Alexander

This paper describes the various forms of bonded labour—the practice of pledging oneself or a member of one's family against a loan—that are found in various states such as Andhra Pradesh, Bihar, Gujarat, Kerala, Tamil Nadu, Uttar Pradesh and West Bengal. The second part of the paper is a comprehensive review of the legislative and administrative measures to abolish bonded labour. In the conclusion, the author suggests the importance of a socio-economic structure for the successful eradication of the social evil of bonded labour.

The importance of landless labourers in our agricultural economy is well known and cannot be overemphasised. Between 1961 and 1971, the percentage of agicultural labourers increased from 17 to 26.[1] Thus, it constitutes the highest proportion of the labour force employed in any sector. This has made the relationship between agricultural labourers and their employers an important aspect of the country's economy.

The nature of this relationship has varied from place to place in range and kind. At one end of the scale were labourers who were free to select their employers; at the other, were the bonded labourers who were *owned* by their employers. These slave labourers were bought, sold, rented and mortgaged like any other commodity. Between these two extremities were labourers varying in degrees of freedom in their relationship with their employers.

Bonded labour existed in different parts of the country for centuries and continued in different forms as "pledged" service for any repayable loans borrowed for medical treatment or ceremonies like marriages, births, deaths or festivals. This resulted in unequal

Dr K.C. Alexander, Deputy Director (Sociology) at the National Institute of Rural Development, Hyderabad, is currently Visiting Fellow at the Centre for International Studies, Cornell University, New York. He is the author of several books, including *Agrarian Tension in Tanjavur* (NIRD, 1975).

1. Census of India, Paper I of 1971, Supplement, *Provisional Population.*

contracts between the moneylender-employer and the bonded labourers who received very low wages, so that the debts incurred could never be paid. The debtor and his family remained bonded for generations and the state and extent of bondage continued to worsen as needs for borrowing more money for special occasions arose. Thus, the bonded labourers remained in perpetual slavery.

Slavery had existed in our country but it was prohibited under Act V of 1843,[2] the application of which was subsequently extended to States ruled by native kings. Even though slavery was banned and the erstwhile slaves were legally emancipated, there was apparently no change in their condition because the socio-economic system in which they were obliged to become slaves, continued. They had to depend on their masters for the satisfaction of their essential needs, such as a place to live, opportunities for employment, loans and gifts and even protection from outsiders. Persons who were in such a relationship of indebtedness with an employer-famer were known by different names, such as *Gothi*, *Vetti*, *Bhagola*, *Paleru* and *Gassigula* in Andhra Pradesh; *Kamia*, *Barmasiya and Janaouri* in Bihar; *Hali and and Halpati* in Gujarat: *Jeetha* in Karnataka; *Jara*, *Manjhi and Lihari* in Jammu and Kashmir; *Paniy.l* and *Adiyan* in Kerala; *Harvahi*, *Mahindari*, *Hali* and *Kamia* in Madhya Pradesh; *Vet*, *Begal* and *Lagnagadi* in Maharashtra; *Gothi* in Orissa; *Sepi and Sonji* in Punjab *Sagri* in Rajasthan; *Khundit*, *Mundit*, *Mat*, *Sewak*, *Hari* and *Sanjayat* in Uttar Pradesh; *Nit Majoor*, *Chaker or Haliay* in West Bengal; *Vayla* in Dadra and Nagar Haveli; and *Nadaiyan* in the Laccadives.

I. CHARACTERISTICS OF THE BONDED LABOUR SYSTEM

In the report of the Commissioner for Scheduled Castes and Scheduled Tribes, the bonded labour system has been defined as

> the practice under which a man pledges his own person or member of his family against a loan. The pledger or his nominee is released only on its discharge. Until then, the man himself or the member of the family is required to work for his creditor against his daily meals or a low wage. Since he can save very little money, he has to depend upon some one in the family to procure the sum required for his release, and this was rarely available. The relationship lasts for months and sometimes years, occasionally for an entire life-time and not infrequently follows the male heir.[3]

2. Dharma Kumar, *Land and Caste in South India* (Cambridge: Cambridge University Press, 1965), p. 73.

3. *Report of the Commissioner for Scheduled Castes and Scheduled Tribes*, 1971-72 and 1972-73 Twenty-First Report (Delhi: Ministry of Home Affairs), p.216

The bonded labour system sustained itself on certain elements of reciprocal cordiality between the parties. For example, in cases where the amount of money or other commodity borrowed was not very high, bonded labourers worked only for a few days in a month. Besides, labourers and members of their families were provided with a sense of security and protection beside various kinds of help such as place and material for building their houses, loans and occasional gifts. The bonded labourers, in turn, were also expected on certain occasions to make offerings to their masters, as a sign of their allegiance. Such a relationship was even fostered under concepts like *Halemaga* prevalent in Karnataka, wherein a bonded labourer was considered as the eldest son of his master's family. However, when the institution is viewed in a social justice and egalitarian perspective, it is obviously very exploitative and anachronistic.

II. INCIDENCE OF BONDED LABOUR AND MEASURES ADOPTED FOR ITS ABOLITION UP TO JULY 1, 1975

Bonded labour is prohibited under Article 23 of the Constitution of India which laid down that "traffic in human beings and *begar* and other similar forms of forced labour are prohibited and any contravention of this provision shall be an offence punishable in accordance with law." The Commissioner for Scheduled Castes and Scheduled Tribes observed that "most of the States/Union Territories are reluctant to accept that bonded labour is prevalent in their areas. The replies that are, therefore, received in this organisation (to the Commissioner's enquiry), indicate that the practice had completely died out which, however, is not a fact on the basis of sample surveys done by this Organisation and various other bodies."[4] Information about traditions and practices of the system in various States is scanty and the State-wise description that follows is based on available material.

Andhra Pradesh

In Andhra Pradesh, the system of bonded labour *(Gothi)*, is prevalent in the Scheduled Areas of Srikakulam, Visakhapatnam, West Godavari and East Godavari Districts as indicated in the report of the Commissioner for Scheduled Castes and Scheduled Tribes for the Year 1965-66.[5] In the Telangana region of the State, a kind of bonded labour system known as *Bhagola* was prevalent.

Most of the *Gothi* and *Bhagola* labourers were employed on an annual basis, but there were monthly and seasonal contracts also.

4. *Ibid.*, p. 216.
5. *Ibid.*

The arrangements were usually made at the begining of the agricultural season in *Ugadi* (March-April). The contracts were generally oral and were renewed every year if the worker gave his employer no cause for dissatisfaction. Loans ranging from Rs 50 to Rs 200 with or without interest, were also advanced to the workers to be adjusted later against wages.[6] The wages of the bonded labourers were paid both in cash and kind and were much lower than those of casual labourers.

The Madras Debt Bondage Abolition Regulation 1940, has been in force in the Scheduled Areas of Andhra region. It stipulated that all *Gothi* agreements would be void if copies of such agreements were not filed with the State Government and the remuneration agreed was not fair and equitable. The period of agreement was not expected to exceed one year; the interest to be charged on the advance was to be simple and not more than six and a half per cent per annum.

The erstwhile Hyderbad Government had enacted legislation in 1947 to control the terms of agreement, employment and other conditions of *Bhagola* workers. Children below 12 years were not to be employed as bonded labourers. According to the Act, the contract of employment could be either oral or written and the period of employment was not to exceed one year. The advances paid to bonded labourers could be in cash or in kind. After the expiry of the period of contract, the labour was not liable to payment in respect of advances, loan or interest. The Act also laid down that interest chargeable on advances and loans would be simple and would not exceed six per cent per annum.

Bihar

Bonded labour is prevalent in different parts of Bihar State. A quick survey conducted by the Commissioner for Scheduled Castes and Scheduled Tribes in 1973 in the Sadar and Latehar sub-divisions revealed that all the 58 persons interviewed from amongst Scheduled Castes and Scheduled Tribes, were working as bonded labourers on loans varying from Rs 22 to Rs 350 for periods ranging from a few months to twenty years. It was also noticed that the persons belonging to Scheduled Castes and Tribes were generally bonded as labourers to persons belonging to Brahmin and Baniya communities who owned land and village shops. A study[7] conducted in Bihar in 1973 in the Bhandaria and Ranka Blocks indicated widespread prevalence of bonded labour system, the period of bondage ranging from three to fourteen years. The enquiry also indicated that

> people willingly joined their exploiters knowing fully that they would be exploited by their employers and made to serve as

6. *Ibid.*
7. *Ibid.*, p. 217.

> bonded labourers during their life time and even if they were not able to repay the loans, their children would have to work for their master .... Out of the 232 iuformants (bonded labourers), as many as 48 informed that they accepted this system of employment at their own accord and only 32 were against this contract and 152 informants did not express their opinion on the system.

Several measures have been taken, first to regulate and subsequently to abolish this practice in Bihar. The first attempt was made in 1920 when the Bihar and Orissa Kameoti Agreements Act was passed. This legislation banned any worker-employer contract which was not made in writing, a copy of which was not supplied to the worker; this contract could not be of more than a year's duration and it had to provide for proper wages. Recognising that rural indebtedness was the root of the problem, the Bihar Government enacted for this purpose two Bills in 1974. The Bihar Scheduled Castes, Scheduled Tribes, Backward Classes and Denotified Tribes Debt Relief Act, 1974, stipulated that

> any agreement, whether entered into before or after the commencement of this Act, whereunder a Scheduled debtor or any member of his family is required to work as labourer or otherwise for the creditor, shall be void, and any such custom or tradition shall cease to prevail.

The Act also provided that

> every debt advanced to a scheduled debtor before the enforcement of this Act, including the amount of interest, shall be deemed to have been wholly discharged, and no such debt shall be recoverable from him, or his moveable property, nor shall any such property be liable to be attached or sold or proceeded against in any manner in the execution of a decree or order relating to such debt.

The Act was applicable to all Scheduled debtors owning one acre of land or less. It debarred the civil courts from entertaining any suit or proceeding against a Scheduled debtor for recovery of loans.

The second Act, the Bihar Moneylenders' Act 1974, provided that "any land mortgaged before or after the commencement of this Act shall be deemed to have been wholly redeemed on the expiry of a period of seven years from the date of execution of the bond."[8] It also stipulated that "no court shall, in any suit, pass a decree for the

---

8. *Ibid,*

realisation of interest at a rate exceeding 12 per cent where the loan is secured and 15 per cent where the loan is unsecured." Further, the court could not entertain a suit filed by an un-registered moneylender for the recovery of loans advanced by him after the commencement of the Act.

Gujarat

Under the bonded labour system known in Gujarat as *Mali* or *Halpati*, the *Halpatis* and their families used to render service in return for a loan, taken usually for the purpose of marriage. According to the latest report of the Commissioner for the Scheduled Castes and Scheduled Tribes[9] and a subsequent communication from the Government of Gujarat,[10] the practice of bonded labour is reported to be non-existent in the State now.

Several measures were adopted in Gujarat to regulate and abolish bonded labour. The Bombay Moneylender's Act 1946 was in force in the State and under its provision the State Government had appointed Inspectors of moneylenders for tribal areas. In 1947, the Gujarat Government appointed a committee to look into the problems of *Halpatis* and, following its recommendations, the *Hali* system was abolished in Surat in 1947.

Halpati Seva Sangh, a voluntary organisation, had also taken up a programme of organising training-cum-production centres to enable the *Halpatis* to increase their earnings and employability.

Karnataka

The bonded labour system in Karnataka is known as *Jeetha*. Under this system the labourers are usually engaged on an annual basis, and the contract between an employer and the worker is ordinarily entered into at the begining the agricultural year. Loans are advanced to the *Jeetha* on the condition that the debtor would work until the repayment of the loan in full. Wages earned by such debtors are adjusted against repayment. No leave of any kind was granted as a rule to the workers and, if any was given, the worker had to make good the period of absence by extra work for the required number of days after the expiry of the period of the contract.

Kerala

Labour-cultivator relations have undergone radical changes in many parts of Kerala. However, the practice of bonded labour is

9. *Ibid.*, p. 218.

10. Letter No. MIS. 1076/12716-I dated 11-2-1976 from the Government of Gujarat.

prevalent in some areas of the State, namely, in south Wynad, Kozhikode district and Malapuram and Cannanore districts. According to this system, a certain amount of money, house-sites or other concessions are allowed in advance as wages for the period of contract. The main condition of the contract is that the labourers had to work for one landlord only during a specific period. In Malapuram district, rich boat-owners recruited their workers on *Bakrid* for a fixed amount. The latter had no liberty to leave their masters until the next *Bakrid*, and that too after giving six months' notice.

Madhya Pradesh

The bonded labour system is prevalent in the districts of Ratlam, Morena, Jhabua and Mandasaur of Madhya Pradesh. Usually, bonded labourers were employed for the whole year, but sometimes for shorter periods too. The conditions of service, mode of wage payment, rates of wages, perquisites etc., varied from area to area. The employers advanced cash and grain to the labourers when the need arose—death, marriage or economic difficulties. The personal service to be rendered in return was valued at an agreed wage rate. Such contracts were made in writing on stamped paper.

Orissa

The system of bonded labour (*Gothi*) prevailed in different forms in different parts of Orissa, particularly in Koraput, Kalahandi and Ganjam districts. Besides *Gothi* these labourers are called *Halias*, *Chakirias* in the coastal districts and *Khambaris* in Koraput district. The practice was for a person who received a loan in cash or kind, to be engaged as bonded labourer for agricultural and domestic purposes as long as the loan together with the interest remained unpaid. Sometimes, after the death of the *Gothi* his children and near relatives continued to serve his creditor.

Though most of the *Gothis* are engaged for the whole year, there are also cases of monthly and half yearly employment. In addition to the annual wage, the *Gothis* received certain perquisites: a pair of *dhotis*, a napkin, a bed-sheet and three or four meals a day.

Several measures have been taken since 1947 to regulate and abolish the bonded labour system in Orissa. The State Government enacted the Orissa Debt Bondage Abolition Act 1948, declaring all *Gothi* agreements void unless the full terms of the agreement were expressed in writing and a copy of it submitted to the sub-divisional officer and unless the monthly remuneration of a worker was fixed at Rs 14 or an amount as might be notified. It was also laid down that interest at a rate of more than 6¼ per cent per annum should not be

charged on such advances. The Act has been made applicable to the partially Scheduled Areas, viz., Ganjam Agency tracts, the district of Koraput, and the Nawapara sub-division in the Sambalpur district.

Rajasthan

The bonded labour system in Rajasthan was known as the *Sagri* system. It was customary for labourers to take advances of money or grain from farmers and money-lenders and become their *Sagris* (bonded labourers), who had to render both agricultural and domestic service to the masters. Their payment was usually on an annual basis. However, in certain areas like Udaipur, *Sagris* were paid daily wages and given free lodging, medical aid, tobacco etc. In certain parts of the State, the Sagris sometimes worked as crop-sharers also.

The Scheduled Areas Act 1951, the Minimum Wages Act 1951, and the Rajasthan Agricultural Relief Act 1951, contained provisions to regulate *Sagri* labour in Rajasthan. In 1961, the Rajasthan Sagri System Abolition Act was passed. There was also another enactment in the State in 1962, abolishing the *Sagri* system.

Tamil Nadu

The Bonded labour system is not reported to prevail in Tamil Nadu. But Purandare[11] has recently reported that the system prevails in the Nilgiri district. The Chetti farmers of Gudalpur Taluk employ bonded hill tribals belonging to Paniya and Kattunayakan communities.

Uttar Pradesh

The practice of bonded labour is known as *Begar* or *Mat* in Uttar Pradesh. An Ordinance issued by U. P. Government in 1974 declared null and void any custom, tradition, or agreement requiring a Scheduled debtor or any member of his family to work as a labourer or otherwise for the creditor.

West Bengal

In certain places of West Bengal, there prevails the custom under which loans taken in the form of paddy or money are repaid by offering labour at rates much below the market rates.

For the States which reported not to have bonded labour in their territories, see Appendix I.

---

11. See *The Illustrated Weekly of India* (Bombay), May 2-8, 1976, p. 8.

III. ABOLITION OF BONDED LABOUR: MEASURES ADOPTED SINCE JULY 1, 1975.

Following the announcement of the 20-Point Programme of the former Prime Minister, Indira Gandhi, the Government of India banned the practice of bonded labour by the Bonded Labour System (Abolition) Ordinance 1975, promulgated by the President with effect from 25th October 1975. It set every bonded labourer free from any obligation to render any service, manual or menial, in lieu of any financial assistance received by his ancestors or by him. Those undergoing a prison sentence for non-payment of such debts were ordered to be released immediately. All customs or traditions, contracts, agreements or other instruments, by which any person was required to do any work or render any service as a bonded labourer, were made void and inoperative. No one could be evicted from any homestead or other residential premises in one's occupation. The Ordinance also provided that the property of the bonded labourers taken over by their creditors should be restored to them and also discharged from mortgage or any other encumbrances.

The Ordinance stipulated deterrent punishment for infringement of its provisions. For employing a bonded labourer or advancing a bonded debt, penalties extending to three years imprisoment or a fine up to Rs 2,000 were provided. In addition, a person found to be so bonded would be entitled to compensation at the rate of Rs 5 for every day of bondage. In the event of the creditors' failure to deliver possession of the bonded labourers' property, the offence was made punishable with one year's imprisonment or a fine of Rs 1,000 besides payment of compensation at the rate of Rs 5 per day.

The Bonded Labour System (Abolition) Bill, 1976, which was subsequently passed by both the Houses of Parliament received the assent of the President on February 9, 1976. Under the law, district officers are vested with appropriate powers relating to cognizance, enquiry and prosecution of offenders so that these cases are disposed of expeditiously and do not get delayed in the normal processes of litigation.

Following the Bonded Labour System (Abolition) Act, State Governments have taken several measures for its implementation and the rehabilitation of bonded labourers. These steps are briefly listed below.

Andhra Pradesh

The Andhra Pradesh Government issued an Ordinance banning the bonded labour practice in the State with effect from 28th August 1975. The Ordinance laid down that payments made in cash or in

kind under the bonded labour system are not recoverable by suit or other proceedings in any court and the debtor or any member of his family is not to be bound or compelled to render any labour or personal service by reason of such payment. All obligations of the debtor to perform labour or personal service arising from any payment and made either in cash or kind under the bonded labour system before the date of commencement of the Ordinance are to be deemed to have been extinguished. The Ordinance also provided for punishment of those who violated its provisions or abetted its violations.

Bihar

The Bihar Government took measures to amend the Scheduled Castes, Scheduled Tribes, Backward Classes and Denotified Tribes Debt Relief Act 1974 with a view to extending its scope to all farmers and other rural households owning five acres of land and less. Severe punishment would be meted out to moneylenders who used coercion in realising loans from the debt-freed rural poor and offences are to be treated as non-bailable.

Karnataka

Many steps have been taken by the Government to free bonded labourers. The Karnataka Bonded Labour System Abolition Ordinance came into effect on 20th October 1975. It made the practice of bonded labour punishable with imprisoment up to three months and a fine of Rs 500. All obligations on the part of the debtor for services to the creditor were abolished and all dues from such debtors to their respective creditors were deemed as discharged.

Kerala

The Kerala Government enacted The Bonded Labour System (Abolition) Act, 1975 and abolished the bonded labour system prevalent in the districts of Kozhikode, Malapuram and Cannanore. The Act also provided that cash paid under this system could not be recoverable by court proceedings and the debtor or any member of his family should not be bound or compelled to render any labour or personal service by reason of such a debt.

The Act also contained provisions for the settlement of disputes on outstanding debts through the office of the Revenue Divisional Officer. After examining the claims and evidence, the Revenue Divisional Officer is expected to decide the amount of recoverable debt and the periodicity of its payment. The Act also laid down that

the principal amount of debt together with the interest payable thereon till the commencement of the Act should not exceed twice the principal amount.

A person aggrieved with the order of the Revenue Divisional Officer may file an appeal before the District Collector within sixty days from the date of such an order. The decision of the District Collector on the issue shall be final. The Act prevents Civil Courts from entertaining any suit or proceedings in respect of the decisions of the Revenue Divisional Officer and the Collector. It also lays down that the Government may pay to a debtor, by way of grant, the amount of the debt due from him to the creditor.

The Act has also made the practice of bonded labour a cognizable offence and has prescribed punishments including imprisonment and/or fine as may be necessary.

Madhya Pradesh

An Ordinance prohibiting bonded labour, The Madhya Pradesh Abaidh Shram Pratishedh Adhyadesh, 1975, was issued on 25th September 1975 by Madhya Pradesh Government and came into effect from 2nd October 1975. It laid down that no person shall compel any person to render any bonded labour, or other similar forms of forced labour, whether on the basis of any custom, tradition or agreement, either oral or written, under menace of penalty, or in repayment of principal or interest or both of any loan or advance or in discharge of any other contract or like obligation. The Ordinance also declared void any custom or tradition or any contract or other instrument whereunder any debtor or any of his dependents is required to work as labourer or otherwise for the creditor.

The Ordinance laid down a penalty of imprisonment extending to three years or a fine extending to Rs 1,000 or both for any person contravening its provisions. It also laid down that any police officer may arrest without warrant any person who is reasonably suspected of having committed or of having the intention of committing a contravention of the Ordinance.

Orissa

The Orissa Government took a number of steps for the abolition of bonded labour in the State. They included:

1. *Conferment of powers of a Judicial Magistrate of the First* Class on all Sub-Divisional Officers of the State for the trial of the offences under the Ordinance;
2. Setting up of a Committee of the concerned officials at the

State level to direct, coordinate and review the progress of enforcement of law and rehabilitation work relating to the liquidation of bonded labour;

3. Constitution of Vigilance Committees at district and sub-divisional levels;
4. Conferment of powers on the District Magistrates:
   a. to enquire into the existence of the bonded labour system in whatever form it may exist in their districts;
   b. to enquire if any creditor is realising bonded debt after promulgation of the Ordiance; and
   c. to enquire whether any person is in possession of records and documents in contravention of the Ordinance.

Rajasthan

The Rajasthan Government issued an Ordinance on September 10, 1975, making bonded labour (*Sagri*) a cognizable and non-bailable offence in the state. The Ordinance also provided for summary trial of the offenders.

Uttar Pradesh

The Uttar Pradesh Government promulgated the Uttar Pradesh Prohibition of Bonded Labour Ordinance, 1975 for the abolition and prohibition of bonded labour in the state. This was subsequenty replaced by the Uttar Pradesh Prohibition of Bonded Labour Act 1975, which came into force on 22nd July 1975. This was supplemented by the Central Ordinance abolishing the bonded labour system.

With a view to ensuring implementation of the provisions of the Ordinance, the following measures were taken by the State Government.

1. Powers were conferred and duties imposed on all the District Magistrates in the State for ensuring effective implementation of the provisions of the Ordinance;
2. The powers of the Judicial Magistrate of the First Class have been conferred upon all Sub-Divisional Magistrates in the State for trial of offences under the Ordinance;
3. Surveys have been sponsored to locate the incidence of bonded labour;
4. Instructions have been issued to all the Regional and Deputy Labour Commissioners to direct their subordinate officers to take active interest in finding out the work being done at district and divisional levels for the abolition of bonded labour.

West Bengal

The West Bengal Rural Indebtedness Relief Act 1975, has now come into force throughout the State regulating employment of bonded labourers. Under the provisions of the Act, debts of small and marginal farmers, share-croppers, landless and artisans incurred on or before July 1, 1975 from private moneylenders are deemed to have been paid. No Civil Court will entertain any suit, application or proceedings against a debtor in respect of any debt incurred by him with private moneylenders. Cases pending before the commencement of the Act were suspended for a period of two years.

IV. CONCLUSIONS AND SUGGESTIONS

The foregoing review indicates that various legislative and administrative measures have been taken in all States where bonded labour is prevalent. Experience shows that mere legislative sanctions are not sufficent to eradicate a deep-rooted social evil and this is also true of bonded labour.

Studies on agrarian relations indicate that social change has come about more rapidly in those areas where agricultural labourers have moved away from traditional norms and values and accepted new ones that reflect an egalitarian outlook. This is reported to have happend in areas where political parties have taken an interest in the abolition and rehabilitation of bonded labour. This can be reinforced if Government encourages such activities by providing to parties and agencies suitable facilities for such work in the backward areas and by adopting the measures listed below.

i. Allotment of cultivable land to as many freed bonded labourers as possible together with agricultural inputs to bring land under cultivation.
ii. Appointment of social workers to guide and help bonded labourers.
iii. Encouragement of voluntary agencies and political parties to work for the betterment of bonded labourers and other weaker sections.
iv. Provision of facilities in backward areas for consumption loans to agricultural labourers in need, particularly those without any security.
v. Provision of house-sites for all landless agricultural labourers.
vi. Enforcement of the Minimum Wages Act and other legislative measures for the benefit of agricultural labourers and vigorous application of the provisions of these Acts in the countryside.
vii. Extensive Studies of different aspects of labour cultivator relations including the practice of bonded labour.

viii. Entrusting Panchayati Raj bodies with the responsibility of executing measures for the abolition and rehabilitation of bonded labour.

APPENDIX I

List of States and Union Territories in which the Bonded Labour System is Claimed to be Non-existent

States	*Union Territories*
Assam	Andaman & Nicobar
Gujarat	Arunachal Pradesh
Haryana	Chandigarh
Himachal Pradesh	Dadra & Nagar Haveli
Jammu & Kashmir	Delhi
Maharashtra	Goa, Daman, & Diu
Manipur	Lakshadweep
Meghalaya	Mizoram
Nagaland	Pondicherry
Punjab	
Sikkim	
Tripura	

APPENDIX II

In 1978 a survey of bonded labour was undertaken by the Gandhi Peace Foundation and the National Labour Institute, and a preliminary report is now available regarding the incidence of bonded labour in Uttar Pradesh. Bihar, Karnataka, Gujarat, Madhya Pradesh, Tamil Nadu, Rajasthan and Andhra Pradesh. See *National Survey on the Incidence of Bonded Labour: A Preliminary Report* (New Delhi: Gandhi Peace Foundation and National Labour Institute, November 1978), mimeo.

The survey estimated the total number of bonded labourers in the eight states mentioned above to be 21.7 lakhs or 6.1 per cent of 37 million agricultural labourers. The estimated numbers of bonded labourers in the different states are as follows: Andhra Pradesh 3,25.000: Bihar 1,11,000; Gujarat 1,71,000; Karnataka 1,93,000 Madhya Pradesh 5,00,000; Rajasthan 67,000; Tamil Nadu 2,50,000 and Uttar Pradesh 5,50,000. The Districts in which there was a concentration of over 40,000 bonded labourers were: North and South Arcot in Tamil Nadu; Nalgonda and Karimnagar in Andhra Pradesh; Shimoga in Karnataka; Ahmednagar in Maharashtra; Baroda in Gujarat; Satna, Shahdol and Bastar in Madhya Pradesh; Palamau in Bihar and Deoria in Uttar Pradesh.

The survey reported that 84 per cent of the bonded labourers in the eight states belonged to the Scheduled Casts and Scheduled Tribes. It was found that 58 per cent of bonded labourers entered into bondage for loans exceeding Rs 500 and and this was particularly the case in Bihar. On the other hand, it was found that 85 per cent of the bonded labourers did not pay any interest. In Rajasthan, for

example, 84.4 per cent of the Sangris claimed that they did not pay any interest on loans taken. Only 11.6 per cent reported paying usurious rates of interest of 40 per cent and above per annum. It was pointed out in the report that, instead of usurious interest rates, money-lenders found small loans and continual indebtedness an effective method of maintaining the system of bonded labour.

Intergenerational Differences in Fertility: A Note on the Inheritance of Fecundity

K.P. Singh

This paper, which examines intergenerational differences in the fertility patterns of three generations of rural women in the Union Territory of Chandigarh, seeks to ascertain whether married daughters in the absence of any use of family planning, tend to have the same number of children as their parents. The data suggest that though there are differences in the age at marriage of the three generations of women, the differences in the mean number of children born by the duration of married life are small enough to support the hypothesis that family size tends to run in families when other variables such as literacy and motivation remain comparable.

Mother and daughter may have the same number of children and this phenomenon has been interpreted as evidence of the inheritance of fecundity by demographers who maintain that family size has a tendency to run in families in the absence of the use of any family planning methods. Pearl[1] evaluated a number of research attempts to study the impact of genetic inheritance on human fertility and found a close correlation between the size of the family of orientation and the size of the family of procreation. Berent (1953) studied the same phenomenon from the point of view of heredity and also of 'family building habits'. He found the patterns of procreation to be similar to the patterns of the family of orientation and came to the conclusion that both biological ability to have children as well as family building habits are inherited.

Freedman[2] contends that family size is a function of social

Dr. K. P. Singh is in the Department of Sociology, Panjab University, Chandigarh.

1. R. Pearl, *The Natural History of Population* (London: Oxford University Press, 1939).

2. Freedman, "The Sociology of Human Fertility: A Trend Report and Bibliography," *Current Sociology*, X-XI (n.2, 1961-62); J. Berent, "Relationship Between Family Size of Two Successive Generations," *Milbank Memorial Fund*

climate, and that societal and cultural norms governing family building habits prescribe a range of acceptable or desirable number of children. This range is then amplified through the interpretation and transmission of such norms from parents to children. Some of these studies were based on the investigation of family size of both father and mother, while others confined themselves to the family size of one parent only.

This inheritance of fecundity is explained sociologically in terms of reference group behaviour according to which children in their efforts to identify with their parents also acquire consciously or unconsciously the family building habits of their parents. Jain[3] has also maintained that adult children in their unconscious efforts to recreate in their own families, the normative structure of the family of orientation, repeat the family size of their parents Thus, according to the reference group hypothesis there appears to be a close association between the fertility behaviour of parents and their children.

The present study is an attempt to examine intergenerational differences in the fertility patterns of women in three generations and to study some of the beliefs of these women that are related to the inheritance of fecundity. In other words, it was intended to find out whether women hold the belief or are aware of the fact that children generally have the same number of children as their parents in the absence of the use of any family planning devices. The three generations covered in the present study are the respondents, their mothers and their married daughters. The respondents' mothers refer to the first generation, the respondents themselves to the second and their married daughters to the third generation. The respondents were asked to provide information about themselves, their mothers and their married daughters. Thus the study is confined to one parent only, i.e. the mothers and their daughters.

Methodology

In order to compare the fertility patterns of women in three generations it was decided to select a sample from the rural areas of Chandigarh where the use of family planning was limited. The

Quarterly, 31 (Jan. 1953); M.W. Jeffrey and J.C. Spencer, "Intergenerational Fertility Throughout Four Generations," *Social Biology*, 22 (n.2, 1975), R S. Kurup and and N V. George, "Variation in Fertility in Two Generations," *Journal of Family Welfare* XV (n.4, 1968); Ruth O. Truex, "The Size of the Family in Three Generations," *American Sociological Review*, 1 (n.4, 1936).

3. S.P. Jain, *Demography* (New Delhi: Tata McGraw Hill Publishing House, 1975).

sample consisted of women of 45 years of age or above who were living with their husbands, widowed or separated.

According to the 1971 Census there are 34 villages in the Union Territory of Chandigarh. These villages are small in size and, with a few exceptions, have populations of less than a thousand persons. The seven adjoining villages selected for the purpose of the study, had 934 householders but there were only 137 households with women above the age of 45 years. Since the number of households is not very large, it was possible to cover all of them. Hence no random sample was drawn and the total universe was taken. In terms of percentage this works out at 15 per cent of the total household population. The total number of women in the first and the second generation was 137 but the number of daughters was 243 as some respondents had more than one married daughter. Only 22 women had no married daughters.

Characteristics of the sample

Before presenting the findings of the study it would be useful to know some background characteristics of the women as they have an important bearing on the study.

The average age of the women was 49.6 years for the respondents (second generation) and 27.5 years for their married daughters (third generation). Information regarding the age of the women in first generation could not be had partly due to recall lapses and partly due to the death of a large number of mothers.

All women in the first generation were illiterate but this percentage was 98 5 and 85.2 for the second and the third generation respectively showing thereby slow progress in female education over a period of two generations. More than two thirds of the males in all the three generations were employed in agriculture. None of the women, with few exceptions in the second and the third generation, was engaged in gainful employment outside the home.

Age at marriage

The data reveal that the age at marriage was higher in each succeeding generation. The average age at marriage in the first generation was 9.9 years, in the second 12.0 years and 15.8 years in the third generation.[4] Table 1 gives the age at marriage of three generations of women.

4. Agarwala has also indicated a general rise in the age at marriage since 1921 and thus the present data are supported by his findings. S.N. Agarwala, *Some Problems of India's Population* (Bombay: Vohra & Co. Publishers, 1966).

Table 1. Age at Marriage of Three Generations of Women

Age in Years	First generation	Second generation	Third generation
Below 10 years	44 (32.1)*	19 (13.9)	2 (0.8)
10-14	86 (62.8)	91 (66.4)	37 (15.2)
15-19	7 (5.1)	27 (19.7)	190 (78.2)
20+	—	—	14 (5.8)
Total number of women	137	137	243

* Percentage is given in parentheses.

The Table clearly indicates the trend in the age at marriage over a period of two generations as a majority of the women in the first generation were married between the ages of 10-14 years or below whereas in the second generation the percentage of women marrying in this age group is less and a significant proportion of them married between the ages of 15 and 19 years. In the third generation a very small percentage of them was married below the age of 14 years and a large majority of women married between the ages of 15 and 19 years and a few even after 19 years of age.

Number of children

The first two generations of women had completed their fertility cycle as all of them were over 45 years of age. In the third generation a majority of the daughters had still to complete their reproductive span and therefore this fact will have to be taken into account when comparisons are made. In order to bring women of the third generation to a comparable level it would have been ideal to take only those daughters who are 40 years of age and above as most women complete their child bearing by that time. However, there were no daughters above the age of 40 years. Then it was decided to include only those daughters 30 years of age and above, though the peak child bearing period is over after the age of 30 and fertility starts declining after this. According to the differential fertility report of Government of India (Government of India: 1972) 60 per cent of the births are to women below 30 years of age and over 80 per cent of them to the women below the age of 35 years. Hence it was decided to take only those daughters from the third generation who were 30 years of age and above. Table 2 gives the average number of children ever born by the average age of women in three generations.

Table 2: Mean Number of Children Ever Born and Present Average Age in Three Generations of Women

	Mean number of children ever born	Present average age of the women
First generation	6 5	—
Second generation	6.9	49 5
Third generation	5.0	32.1

The Table reveals an almost negligible difference in the mean number of children ever born in the first and the second generations and, whatever the differences, they appear to be partly due to the higher incidence of male mortality in the first generation (number of widows is comparatively higher in this generation) and partly due to recall lapses. On the other hand, the differences in the mean number of children in the first and third generations and the second and third generations are there but they are not at a level to make them incomparable. And whatever the differences they appear to be mainly due to the lower present average age of the women. Of course some differences may also be attributed to their higher age at marriage, slightly higher level of literacy and the use of family planning devices not known to their mothers.

Since fertility is a function of the duration of married life it was considered proper to analyse the mean number of children with the duration of married life. Table 3 gives the mean number of children born by the duration of married life of women in three generations.

Table 3: Mean Number of Children Born by the Duration of Married Life in Three Generations

Duration of married life	*First Generation*		*Second Generation*		*Third Generation*	
	Number of women	Mean number of children	Number of women	Mean number of children	Number of women	Mean number of [illegible]
0-9	16 (11)*	1.5	—	—	68 (33)	2.6
10-19	26 (19)	4.4	22 (16)	4.9	132 (65)	4.6
20 and above	95 (70)	7.9	115 (84)	7.2	4 (2)	6.5
Total	137	6.5	137	6.9	204	4.0

*Percentage is given in parentheses.

No valid comparison could be made regarding the duration interval 0-9 years between the three generations as there were no

women in the second generation; and in the first generation also there were 9 widows out of a total 16 women, whose husbands died after the first child, hence their family size is small. In the duration interval 10-19 years the differences in the mean number of children born between three generations are very small and clearly indicate the trend in three generations. In the duration interval 20 years and above also the difference in the mean number of children born is very small between the first and the second generation though it is slightly more in the third generation—but here the number of cases is too small to permit any generalisations. On the whole, the data indicate insignificant differences in the mean number of children born in three generations and, therefore, support the general hypothesis that family size has a tendency to run in families.

It was further observed that there was no significant variation in the actual number of children born in the first two generations of completed fertility as 47 per cent of the women in the first generation as against 44 per cent in the second generation had six or less than six live-born children. On the other hand, 53 per cent of the women in the first generation had seven or more than seven live-born children. Thus even in the variation in the exact number of children born there is additional support for the hypothesis stated above.

Beliefs and attitudes

After having discussed the actual family size in three generations, an attempt was made to find out whether the respondents were aware of or believed in the inheritance of fecundity or family building habits. Since beliefs are ideas and conventions centred on values, they influence the behaviour and life style of the individual. Thus the women were asked whether they believed that sons and daughters usually have the same number of children as their parents. It is interesting to note that 88 per cent of the respondents expressed a strong belief in this phenomenon and maintained that they not only observed it but had also experienced it in their own families. Eleven per cent of the women were uncertain, while only one woman did not believe in the inheritance of fecundity.

In order to probe further into their beliefs, they were asked whether they believed that when in a family there are only daugnters and no sons, the daughters are likely to produce more daughters or only daughters as compared to the one in which there are a few or more sons. The data reveal that only 28 per cent of the respondents were in complete agreement with the statement whereas 52 per cent of them did not agree with the statement showing thereby their belief in the inheritance of fecundity but not in the inheritance of any particular

sex. Here too, 20 per cent of the respondents were uncertain and did not give any categorical reply.

These beliefs of the women when correlated with their actual family structure could give us a better idea of their beliefs, but unfortunately the number of such cases is too small to allow for generalisation. For example, out of the total number of respondents, only 10 of them were from families where there were only daughters and no sons and out of these, nine believed in the heritance of fecundity; however, with respect to the inheritance of any particular sex only three believed that because they had more daughters, their daughters are also likely to have more female children.

In order to ascertain the attitudes of the respondents towards female children, they were asked whether they would be willing to marry their sons in a family where there are only daughters or more daughters than sons. It is interesting to note that 83 per cent of the respondents replied in the negative and stated that they would avoid marrying their sons to girls of such families. No doubt some of them would have dowry considerations in mind as more daughters would mean less dowry, yet this high percentage is a clear indication of their strong belief that more daughters or only daughters in a family are themselves likely to bear more female children. Only 13 per cent of the women would not object their son marrying a girl from this kind of family while the remaining 4 per cent had no belief in the inheritance of sex.

Conclusion

We may therefore conclude that, though later generations are characterised by higher age at marriage and the earlier generations by lower age at marriage, the differences in the mean number of children born by the duration of married life are small enough to support the contention that family size has a tendency to run in families. Biological fecundity is perhaps inherited; however, against the background of increasing literacy and motivational changes in different generations, fecundity as measured by the average number of children born within the reproductive span of a particular woman may not be inherited.

The Current Scene of Industrial Relations: Some Reflections

N.R. Sheth

This paper defines the norms of effective industrial relations against which it discusses the salient features of the industrial relations scene during the post-emergency period. This wide-ranging analysis of industrial unrest, government intervention, attitudes and roles of employers and workers suggests that, contrary to popular belief union rivalry and violence account for only a small fraction of labour unrest; that employers show willingness to negotiate union demands only after agitation; that there is a growing trend towards unionisation and militancy among white-collar workers; that government policy has failed to develop a bilateral relationship between management and labour; that the separation of trade unions from party politics continues to elude both politicians and labour leaders; that there is a need for an effective and unambiguous procedure for the resolution of industrial conflict.

My task in this paper is to analyse the current trends in industrial relations in India, following Bagaram Tulpule's observations on the subject published earlier in this journal.[1] Tulpule has shown with the help of statistics on industrial work-stoppages that labour unrest during the pre-emergency period was not as widespread as made out by the protagonists of the emergency and also that unrest had grown during the period of emergency (July 1975-March 1977) in spite of severe restraints on the labour movement imposed by Government. Tulpule also suggests that the initial upsurge in industrial unrest at many places since the end of the emergency has now begun to give way to a relatively more peaceful industrial relations climate. At the same time, it is argued, government's plans

---

Dr. R.N. Sheth, Professor at the Indian Institute of Management, Ahmedabad, is the author of several books, including *The Social Framework of an Indian Factory* (Oxford, 1968).

1. Bagaram Tulpule, "Trends in Industrial Relations," *Social Action*, 29 (no. 1, January-March 1979), pp. 14-24.

for an effective system of management of industrial conflict, promotion of workers' participation in management and development of a viable system of wages and incomes have little chance of success due to their unacceptablity among employers and employees. Tulpule fails to notice either any new ideas or strategy on the part of the government or any willingness among employers and unions to return from the present "chaotic state of affairs" in industrial relations. As an optimist, he spots a ray of hope in what he describes as "a certain process of maturity in the attitudes and conduct of the parties" which "has been going on, albeit very slowly." I wish to examine these issues in some detail. I shall however restrict my attention to the post-emergency period.

Norms of effectiveness

It is obvious that in a democratic society such as ours, there are no universally accepted norms of effectivenesss to guide the assessment of observed facts of industrial relations. Every observer explicity or implicitly makes assumptions in such an evaluation. I should therefore state briefly what I regard as the norms of effective industrial relations.

(1) Industrial unrest measured in terms of loss of production mandays in consequence of strikes and lock-outs is of course a useful indicator of the health of industrial relations in a community. It is also by far the most convenient and popular indicator, as it is mainly based on statistical data. We should, however, remember that such health statistics have grave inadequacies about them and may often prove misleading to analysts as well as practitioners. For instance, absence of strikes and lock-outs does not indicate healthy labour relations to the extent that industrial peace depends on fear among employees caused by an employer's threats of serious punishment or fear among employers caused by a union's ability to disrupt the financial viability of an enterprise. On the other hand, strikes and lock-outs may suggest good health in industrial relations if they provide a basis to employers and employees to identify the areas of their disputes and move towards a quick resolution of disputes. Hence statistics on strikes and lock-outs should be used with a great deal of caution in the assessment of effective industrial relations.

(2) It is essential for the various parties involved in industrial relations to have a shared understanding of the basic social context of the industrial relations system. It should be appreciated that employers (or their representatives) and employees (or their representatives) are distinct interest groups within the industrial organisation.

Traditionally, material resources, organisational authority and social status have been structured in such a way that employees are located at the receiving end of the decision-making process. There is therefore an inevitable conflict of interest between employers and employees. The two groups are permitted to express this conflict in various ways including strikes and lock-outs within certain constraints. Trade unions have the responsibility to protect employees' existing rights as well as to acticulate and promote their interests through concerted action. We should note that trade unionism in our type of society implies ample scope for progressive expansion of employees' rights in relation to the distribution of resources and authority.

(3) As industrial organisation depends mainly on collaboration between employers and employees, there should not be an urge on both sides to reconcile their conficting interests whenever conflict arises. The best known method for achieving such reconciliation is bilateral negotiations or collective bargaining where both parties jointly confront the various issues and arrive at an agreed solution. If the parties fail to reach an effective agreement, the dispute should be referred to a jointly acceptable third party. Government should intervene in such disputes only when there is a threat of serious economic or social disorder.

(4) A genuine bilateral system of conflict resolution is likely to succeed if employers, employees and their representatives develop a relationship of mutual understanding, trust and confidence. It is only on the basis of such attitudes and outlook that the much-needed spirit of cooperation and equality and the corresponding institutions of participative management can be successfully developed.

The measure of unrest

Against the background of these norms, let us now look at the salient aspects of the Indian industrial relations system during the two years since March 1977. The observations presented here are based on reports published in newspapers and periodicals and, to some extent, on personal communication with some friends involved in industrial relations.[2]

When the emergency was lifted and the Janata Party took

---

2. The factual information presented here is is drawn from *The Times of India* (Ahmedabad edition), *The Times of India* (Bombay edition) and *The Economic and Political Weekly*. I am aware of the limitations and biases inherent in such information I have avoided detailed references to sources of data as such references are unlikely to help the readers in a primarily impressionistic paper.

over government at the centre, there was a mixed air of expectancy and apprehension within the industrial relations community. Many employers and managers who had breathed a sigh of relief during the emergency due to a virtual ban on union militancy feared that trade unions would let loose their suppressed energy and dislocate the wheels of industry, In fact. some had begun to believe that government and employers could jointly replace trade unions by developing adequate concern for employees' interests. On the other hand, trade unions and workers were hopeful that the new government would restore their conventional democratic rights (especially the freedom of association and the right to protest), confer some long-awaited economic benefits on workers (by resolving the controversial issues of bonus and living wage) and formulate a rational policy on management of industrial conflict (with regard to problems of political unionism, inter-union rivalry, recognition of a bargaining agent and government's dominant role in the resolution of disputes). It was also hoped that individuals and groups constituting the various sections of the industrial relations system would realise the advantages of healthy collaborative attitudes towards one another in the background of past experience and hence would play their respective roles with an urge to resolve conflicts in a spirit of give-and-take.

As Tulpule indicates, industrial unrest measured in terms of strikes and lock-outs increased sharply during 1977 (loss of 213.98 man-days) in comparison with 1976 (loss of 127.96 man-days). It is however, not easy to assess the health of the industrial relations community from these figures. One could make some assessment in this regard only if one has access to data on the length of the various disputes, the issues at stake and the behaviour of the parties concerned in the process of the resolution of disputes. In the absence of such data, I analysed the information available in periodical reports on labour unrest from April 1977 to January 1979.

My information covers 112 strikes and 15 lockouts in a wide variety of organisations in the private and public sectors of industry as well as service organisations such as hospitals, universities and government administration. The incidents of unrest were reported mainly from the relatively new industrial centres in Maharashtra, the Faridabad-Ghaziabad region around Delhi, the mining and heavy-industry complex in eastern India and the major industrial centres around Bangalore and Madras. Agitations in the banking, insurance and ports and docks industries as well as among government emyloyees in Maharashtra covered large number of people and were relatively prolonged, resulting in huge economic lost to the community and inefficiency in work. Among the 112 strikes in my sample, only 12 were reported to have continued for over a week (four of these lasted for

several months). A large proportion of the strikes (78 out of 112) seem to have been called off within 2-3 days.

Causes of unrest

Reports suggest that more than half (59) of the 112 strikes were organised by trade unions to press employees' economic demands relating to wages, allowances and, above all, bonus. 17 strikes were in protest against suspensions or dismissals of employees, mainly involving charges of victimisation by managements for union activities. Eighteen strikes related to managements' personnel policies and practices regarding working conditions, transfers, promotions, resolution of employees' grievances etc. Ten strikes arose from rivalries among trade unions, typically as a result of attempts by minority unions to gain control over employees through intimidation and violence. Four strikes resulted from violence and threats imposed on employees by labour contractors and money-lenders with the help of police. Four others were token strikes observed by employees to express sympathy with other strikers.

The fifteen lock-outs on which I have some information seem to have been caused mainly by prolonged strikes among employees along with violence, intimidation and sabotage in the wake of inter-union rivalry. In two cases, employees were reported to have made impossible economic demands on their employers, such as a wage increase of 250 per cent and bonus amounting to 68 per cent of the annual wages.

In spite of the gross inadequacy of such information, it provides some basis to study the trends in industrial relations. The data on strikes, for instance, suggest that, contrary to popular belief among some sections of employers and government, a relatively small proportion of labour unrest was caused by problems of inter-union rivalry and violence. At the same time there is evidence to suggest that violence in a few cases was either engineered or abetted by employers and their representatives. Strikes caused by employees' perception of inaction, discrimination or victimisation on the part of employers should also not be ascribed to recalcitrance among employees or unions. In a large number of cases, unions and employees seem to have been in pursuit of their economic interests with the legitimate weapon of strike in their command. It appears that many of them had found their economic gains frozen or partly withdrawn by government orders during the emergency without a clear guideline on rationalisation of such gains. In some industries, particularly in the more affluent sectors, employers and government had expressed their intention of keeping employees' emoluments and other benefits frozen at the existing levels. The pressures generated by unions and

employees in such cases therefore appear to be the most effective logical choice for employees to pursue their interests in the climate of freedom at the end of emergency.

Significantly, many employers (including those in key sectors such as banking and ports and docks) showed willingness to negotiate employees' demands only after considerable pressure was generated by unions at the cost of the larger community. Similarly, during mid-1978 many employers were reported to have agreed to bilateral negotiations on employees' demands when they faced the prospect of strikes and agitations. Such experiences drive home to employees and unions the obvious lesson that employers are in the habit of yielding to the pressure of strikes, slow-downs and other forms of agitation which should therefore become a part of employees' habit. Viewed in this manner, industrial conflict during the post-emergency period appears to be not simply a result of union militancy, political rivalry or greedy and credulous employees. but, more importantly, a product of employees' urge to clinch economic benefits from employers and also a reaction to the employers' *ad hoc*, fearful and occasionally exploitative labour practices.

An important aspect of the industrial relations scene during the last two years is the growing unionisation and militancy among white-collar workers, supervisory and managerial staff and professionals in employment, such as teachers, technocrats and medical practitioners. These groups have been steadily learning from experience that employees at lower levels have comparatively better economic prospects due to their ability to exert pressure on employers through union power. In fact, union power has in many cases substantially closed the social and economic gap between managerial employees and others below them in the organisational hierarchy. This experience has lately created an urge among the upper cadres of employees to resort to conventional trade union practices. It is noteworthy that some serious attempts have been made in recent years to form national federations of officers in industry (for instance, the All-India Confederation of Bank Officers' Organisations and the All-India Coordination Committee of Officers' Organisations). In the background of the employers' habit of listening to threats, managers and professionals have begun to adopt the same techniques of resolving disputes. They seem to have been remarkably successful with this technique in the banking industry as government and employers have been virtually forced to shelve a scheme for rationalisation of the emoluments and service conditions of bank officers.

Thus economic aspirations have been steadily growing among all sections of the organised working classes. Along with this, the hitherto non-militant groups have realised the advantages of militant

action for clinching any benefits from employers. Those who belong to the lower income groups among employees want to achieve economic parity with their more fortunate brethren, but the latter want to maintain their privileged economic status. On the other hand, vast masses of workers in the unorganised sectors of industry (construction, cottage industries, etc.) and agricultural workers still live on below subsistence wages with little protection from law or unions, besides the multitude of the unemployed and the under-employed who manage somehow to keep their body and soul together.

This alarming economic disparity among the various sections of the working classes has provided a convenient stick to employers, government and the citizens to beat the more affluent employees in industry and government who are characteristically described as "labour aristocrats who live on high wage islands." The latter, however, argue that they have a right to promote their interests in relation to their economic aspirations and the prosperity of their employers and that their sacrifice is not necessarily likely to benefit the poorer sections of the working classes. They also point out that they see little concern for the poorer workers among people above them in the economic hierarchy (landlords, industrialists, traders, bureaucrats, politicians) who become richer by the day in spite of the country's economic problems. One notices in this context a growing alienation and conflict of interest among the various sections of the workforce. Such alienation and conflict are not likely to result in an open struggle among these sections as there are too many social, economic and political links across the various income groups among employees. However, these groups are hardly likely to merge their interests in a united trade union movement of the working class. Trade unionism may continue to be a highly fragmented movement with the various sections working against one another rather than collaborating to achieve a common objective.

Government policy and legal framework

In 1977, the policy makers in the ruling Janata party had realised the need for a major overhaul in the legal superstructure of industrial relations as well as in the government's approach to management of industrial relations for achievement of the objective of peace, productivity and better standards of living. Members in government, who had first-hand experience of the long legacy of the Industrial Disputes Act, and the Trade Unions Act were aware of the problems and inefficiencies resulting from inter-union rivalries, absence of recognition of unions for bargaining with employers and government's overriding power to intervene in industrial disputes. Government also

recognised the need for developing guidelines regarding wages, incomes and prices. Hence government promised to formulate a wages and incomes policy, revise the law on trade unions and resolution of industrial disputes and promote labour-management cooperation.

It was decided to introduce these changes through a democratic process and with the assistance of experts in industrial relations. Hence the central government began consultations with state governments as well as representatives of employers and trade unions within the framework of the informal tripartite Indian Labour Conference which had been disbanded by the earlier government. On the basis of the consensus reached in this tripartite forum, special committees consisting of the various interest groups and experts were formed to make concrete recommendations on industrial relations law and workers' participation in management. A small expert committee was also constituted to recommend norms for a policy on wages, incomes and prices. Government appeared to be earnestly concerned with the task of the rationalisation of outmoded policies and procedures in industrial relations. In this background, most people interested in industrial relations shared the euphoria generated by government's promises of healthier industrial relations and initial efforts at keeping the promises.

As these democratic exercises in change progressed, it became clear that many major hurdles had to be crossed. The various sections among government, employers and unions were oriented to disparate and conflicting definitions of an effective industrial relations system. While the overriding concern among government and employers was with industrial peace, trade unions were mainly concerned about their freedom of association and right to strike. In this background, the recommendations of the committee on industrial relations law emerged as a patchwork of reconciliation of various interests. The Industrial Relations Bill which was introduced in the Lok Sabha in August 1978 after repeated promises, lays heavy stress on industrial peace and lays down serious restrictions on trade unions with regard to freedom of association, the right to strike and identification of a negotiating agent for dealing with employers. The Bill ostensibly facilitates the development of a bilateral relationship between employers and employees, but leaves little scope for the actual emergence of such a relationship by creating major hurdles in the way of effective trade unionism in a plant or industry. While employers have largely welcomed the new legislation, the overwhelming majority of trade unions have made strong protest against what they regard as "the black Bill" or "the anti-labour Bill." Not many trade unionists have so far thought it necessary to offer constructive comments and suggestions on the Bill. It is however encouraging to hear that a team of senior trade unionists in Bombay is currently engaged in formulating

concrete proposals on this subject. The recommendations of the expert committee on wages and incomes drew as hostile a reaction from trade unions (as well as others) as the Industrial Relations Bill. Thus government and unions at present seem to have fallen apart in respect of the two most important steps envisaged in 1977 towards a more effective industrial relations system.

Roles and attitudes

Let us now examine the behaviour and attitudes of government, employers and unions in the context of the roles prescribed for each group as a part of the industrial relations community. In 1977, political leaders in the ruling party had announced that they would not promote or support any trade union organisation. The need for separation of trade unionism from party politics was stressed by politicians and echoed by trade unionists. Concurrently, serious efforts were undertaken by some prominent union leaders in Bombay and elsewhere to forge a unity among the various trade union centres for creating a strong, effective and socially responsible trade union movement in the country. Such efforts have been going on since 1977. Off and on, one hears about the joint trade union action in Bombay, Bangalore, Baroda, Delhi etc. On some major issues (such as the Report of the Committee on Wages and Incomes or the Industrial Relations Bill 1978), trade unions with widely varying political backgrounds have shown unprecedented unity in opposition to government's plans. In spite of such a show of strength, however, trade unions have achieved little unity either in their approach to industrial relations problems or in their action. Most plans for trade union unity appear highly selective in their detail. For instance, on one occasion, a plan was made to unite non-Communist unions. On another, unions which had supported the emergency were excluded in a plan for unity. And so on. Such plans were, of course, made as attempts to begin the task of unity among unions. However, the plans unfortunately made little headway in the shape of a concrete strategy and action programme. Encouragingly, a "consolidation conference" was recently organised in Bombay in an attempt "to invite all believing in trade union unity to come together under one platform."

In practice, politicians and trade union bosses seem to be incapable of implementing their noble thoughts on the need for separation between trade unions and party politics. For instance, while some leaders in the Indian National Trade Union Congress are busy planning for a labour party on the lines of the British Labour Party, newspapers have repeatedly reported during recent months a high probability of a vertical split in INTUC in relation to factionalism in

the erstwhile Congress Party. Some politically oriented trade unionists have become notorious for using coercion and extreme violence on employees as well as employers to gain a foothold for their unions in a unit or region. In some cases rival unions patronise employees belonging to specific caste or linguistic groups within an industrial community, These groups remain in perpetual conflict with one another and hence they are unable to develop strength in relation to the employers. The employees' freedom of association in such cases implies freedom to remain weak. One the other hand, some central and state ministers belonging to the Janata Party are known to promote unions associated with their own factions within the party (as against unions associated with other factions within the *same* party) in collusion with employers and labour administration. In one case, some politically powerful union leaders in a large city were reported to have exerted pressure on government to compel the chief executive of a large public sector unit to live in the city (rather than in the factory area) so that they could deal with him according to their convenience. A friend who personally knew these leaders appropriately called them "absentee landlords." Ironically, they belonged to one of the more radical sections of the trade union movement.

Employers, on their part, stress the need for harmonious relations with unions and employees. For them, harmony usually means absence of strikes and agitations. Any evidence of union protest is used in support of their contention that employees in general are greedy and irresponsible and are guided by irresponsible and politically motivated trade unionists. When an act of union violence takes place in some corner of industry, employers begin to apprehend a general threat to the management community. However, they tend to forget that some employers too are capable of engineering the worst forms of violence against employees who demand their earned wages or resist coercion by managements. It is not rare to come across employers who adopt a policy of "divide and rule" in relation to inter-union rivalry or use the managerial prerogative of "hire and fire" in an attempt to break the strength of a union. Let us understand that when unions and employees resort to violence, they often use open, militant, obviously illegitimate coercive power. But when employers resort to coercion through police force or through their managerial authority, their violence is often concealed under their control over resources, managerial prerogatives and, above all, their higher social status in comparison with employees.

In sum, there is a crisis of confidence and trust among the parties involved in industrial relations. Understandably, there seems to be a circular relationship between the external behaviour of the various

parties and the crisis of confidence I have attempted to indicate in the preceding paragraphs. In my view, when the initial plans to change the system of industrial relations were made in 1977, the *elite* among unions, employers and government appear to have hoped that they would be able to make a clean break with their traditional attitudes of non-cooperation and mistrust and evolve a new, viable mode of dealing with the major issues in employer-employee collaboration. However, as work progressed, they seem to have fallen back on their conventional roles as govenment, politicians, employers, unions etc., and dealt with industrial relations issues in terms of their sectional interests. At the same time, the sudden spurt in strikes and lock-outs at the beginning of the exercise in change is likely to have reinforced the conventional roles of the participants in the exercise. This regression to conventional roles might have made the exercise ineffective and its outcome insignificant. This consequence may further reinforce the conventional roles and attitudes of the various parties. Such, perhaps, is the nature of the "chaotic state of affairs" observed by Tulpule in his analysis of trends in industrial relations.

Exceptions

Is there any order in this chaotic situation? Perhaps there is no chaotic situation without some order about it. Tulpule has observed the emergence of maturity among employers and unions in some major industries (for instance, steel, cement) who have successfully completed bilateral negotiations with minimum interference from a third party. I believe this is too modest a view of the effectiveness of industrial relations in the country. In academic discussion of the trends in industrial relations one tends to indulge in exaggerations. In portraying the chaos or vicious circle of industrial relations, one is likely to neglect the existence of employers and unions who may have been dealing with each other collaboratively in work relations and resolving disputes and conflicts in a style of constructive confrontation of the issues involved. We may occasionally meet such adult partners-cum-opponents in industrial relations. It is difficult to recognise such people in overviews or surveys of industrial relations. It is even more difficult to measure their proportion in relation to the people constituting the chaos of industrial relations. Let us hope they exist in significant numbers and compliment them for their maturity. They constitute the living guidelines of an effective system of industrial relations.

Breaking the vicious circle

As for the less mature partners, is there a way to break the vicious circle of industrial relations as described above? Let us first

remember that such a vicious circle is probably not to be a unique characteristic of our industrial relations system. One is likely to discover similar vicious circles in the analysis of our educational system, rural development plans and such other parts of the process of social change in the country. In all these aspects, we seem to be quite *capable of identifying our problems and formulating comprehensive* plans for achievement of our goals. However, when we begin to build the structure in relation to our grand design, we tend to introduce, many external elements and twist the orginal plan. For instance, there is a general agrement among all concerned parties on the need for an effective and unambigupus procedure for the resolution of industrial conflict. Accordingly, a comprehensive plan was made by government to introduce a new comprehensive law on industrial relations. But while formulating a concrete system of industrial relations in terms of the recent Industrial Relations Bill, government seems to have altered beyond recognition some basic democratic principles regarding trade unionism and bipartite negotiations. As a community of social builders, wo are perhaps very good outline architects but poor structural engineers.

The lack of trust and mutually hostile attitudes among the parties involved in industrial relations, as suggested earlier, may be a combined product of our fragmented and hierarchical social system, corrupt political system, poor economic system and poorer educational system. There is no space in this paper to examine this proposition. However, it is useful to appreciate that change in outlook and attitudes is an integral part of the wider social organisation.

If the vicious circle of industrial relations is rooted in our cultural legacy and, further, if it cannot be easily broken through change in peoples' attitudes what alternatives are left to us? At this stage, we should return to the area of government policy and law. While the behaviour and attitudes of government are bound to reflect the syndrome of behaviour and attitudes in the society at large, it should be remembered that a major function of government and law is to show the way to the community rather than manifesting community behaviour. It is therefore essential for government as leader of the community to adopt c clear and unambiguous approach to trade unions, industrial disputes, methods of resolving disputes, and methods of promoting collaboration. An appropriate legal framework on the subject should be built on the foundation of such an unambiguous approach. For instance, if we want to evolve a system of industrial relations within the wider democratic socio-political system, it is necessary to lay adequate stress on trade union freedom and bilateral resolution of industrial conflicts. On the other hand, if it is considered necessary for government to control industrial relations in the

interest of peace and productivity, such a need should be stated categorically and an effective control system should be devised accordingly. At present, government and, along with it, the other parties seem to be falling between the stools of industrial democracy and industrial peace.

Book Reviews

NATIONALISM AND COMMUNAL POLITICS IN INDIA (1916-1928). Mushirul Hasan. New Delhi: Manohar Publications, 1979. Pp. xii+372. Rs 75

Many Indian writers claim that the partition of the sub-continent was entirely the doing of the British "divide and rule" policy while Pakistanis and the British maintain that for a millennium Indian history has been one of Hindu-Muslim conflict. Both these partisan positions work under the assumption that the Hindus and and Muslims were monolithic communities, and as such antagonistic by their very nature.

Mushirul Hassan tries to take a detached view and study the group interests of the leaders and "the unifying elements which so often brought members of various castes, sects and communitites together." They were not leaders of the whole commnity but represented only their class and regional interests. In fact, the divisive tendencies came not from the Muslim majority in the Punjab and Bengal where adherents were mostly peasants, but from the landlord dominated Muslim minority of UP where they controlled positions of influence which they would have lost in a non-communal approach.

However, unifying elements were not lacking. The Indian Muslims, most of them with Hindu ancestry, retained many of their customs and their cultural links with the Hindus. The class interests of landlords and tenants transcended their religion. However, their religious organisation—common doctrine and rural, weekly and annual congreations and pilgrimages—provided the regional Muslim leaders with the emotional element required to rally all classes round their cause in the name of religion.

The Congress party in its turn accepted the myth of the "homogeneous communities" and through of itself as a national movement bringing the two communities together. Its leaders treated the Muslim sectional leaders as spokesmen of the whole community thus aiding them in their task of promoting their elitist interests in the name of their religion. The British would institutionalise the "division of communities" through the communal electorate.

In actual fact the demands and attitudes of the leaders depended on their class interests. The landlord and administrative groups that had a vested interest in British rule, dominated the Muslim League while the nationalist Muslims were mostly from the younger, educated, professional groups. However, the revivalist movements had produced communal leaders both among the Hindus and the Muslims. The Ali brothers belonged to such a Pan-Islamic trend of "defence of Islam" though the landlord leaders also joined them

later. Sebsequently, many actions of the government alienated these leaders. Britain's role in the Turko-Italian war and the break-up of the Ottoman empire would further weaken the *de facto* British-Muslim collaboration. A section of its leaders including Jinnah would accept an anti-British coalition with the "Hindu" Congress that led to the "Lucknow Pact" (1916) followed by five years of close Congress-League cooperation, reduced communal tension, repression by the British, arrest of the Ali brothers that made martyrs of them and obliged even the conservative leaders to support their alliance with the Congress.

The alliance would culminate in the Khilafat movement jointly organised by the two. But the "defence of Islam" would force the professional politicians to seek the cooperation of the Ulama in order to rouse popular sentiment. During the imprisonment of the Ali brothers, the purely religious leaders would get the upper hand, and the sectional leaders would use them for their own ends. The Hindu communal elements would exploit the Mapilla riots to their advantage. Thus the movement that was the very symbol of communal unity would itself become the basis of the League-Congress rift.

With the abolition of the Khilafat, the internal divisions among the Muslims would re-emerge. They would react to events such as the Nehru Committee Report according to their class interests. The response from the Punjab, Bengal and UP would not be the same, through they would agree on a few issues affecting the whole community. Ultimately ignorance of the class nature and concentration on communal unity would be fundamental in enabling the local leaders to give a communal colour to their interests.

The book is scholarly and highly analytical—perhaps too much so. The author produces documentary evidence to prove every statement he makes; but gives many more details than necessary to understand the situation or prove the point. More effort in editing the original thesis to eliminate unnecessary list of names and events would have made it less tedious to read.

He has convincingly brought out the important role played by group interests and has successfully exploded the purely communal myth. However the book does not give sufficent importance to the role of the "third party"—the British—in the final break between the groups. They emerge only as law-makers and constitutional reformers to whom Indians reacted according to their interests. Many acts such as Lt. Governor Hewett's manipulations to ensure the pro-British Mushtaq Hussain's victory over Muhammed Ali as the Aligarh secretary, and the viceroy's efforts between 1906 and 1909 to sustain Muslim interest in the communal electorate show not a natural law-maker's role but a deliberate policy of intensifying the

conflicts beween the two communities. But they are not mentioned. Despite these shortcomings, the book is a major contribution to the understanding of communal relations in India.

CHILD-TO-CHILD. Audrey Aarons and Hugh Hawes with Juliet Gayton. London: Macmillan, 1979. Pp. 104. 95p

This book, which is based on the experience of health workers in the developing countries, is a pioneering attempt to familiarise teachers and social workers with a new yet simple approach to health care. There is a tendency for doctors, particulary when dealing with the poor, to relate to them only as healers and not as educators. Because of the lack of communication between the doctor and the patient many of the opportunities for informal education in hygiene, nutrition and environmental sanitation are missed. This book shows that if adults—teachers and health workers—work together with children to improve the health of their locality, they can perform this important task as an enjoyable educational activity.

The distinctive features of this new approach to community health are sensitivity to the local culture and beliefs of the people, knowledge of their needs and problems, and a recognition that the people themselves—even small children—can learn to manage their immediate environment. The emphasis is on the *activity* of children—their involvement is surveys, role playing, dramas, making of posters and so on—combined with reflection and the evaluation of results. Each chapter is designed to focus on an idea connected with health, the activities required to make this idea a reality in the neighbourhood, the role to be played by children and, finally, an evaluation of the results such as change in the environment and increase in knowledge, which have been brought out by the activities of the children themselves. Using this methodology children (and adults) can learn how to cope with accidents, diarrhoea, and respond to the food, health and play needs of young children.

Like other innovative programmes, the methodology of the CHILD-to-child programme seems simple. It is built on a common observation that, in the developing countries, children do in fact look after their younger brothers and sisters—playing with them, feeding them, dressing them, and caring for them when they are sick. This book, which has excellent illustrations by Carol Barker, is warmly recommended to teachers and social workers as well as to policy makers in the field of health care. It shows that the CHILD-to-child approach can promote health education and the quality of life of very young children at very low cost.

LABOUR FORCE PARTICIPATION AND DEVELOPMENT. Guy Standing. Geneva: International Labour Office, 1978. Pp. xiii+267. SwF 30

A strange feature of this valuable study on economic-demographic interaction in the particular field of labour force participation measured at both community and houshold levels in more developed and less developed countries, is the rather striking absence of any reference to the research work on this topic by national scholars of developing countries. Even where this issue is discussed in reference to Third World countries, it is always the theoretical and statistical productions of British and American scholars that are liberally quoted for furnishing the arguments and supporting them with the necessary factual information. Indeed much of the book comprises summaries, elegantly presented, of individual works already available together with some of the latest statistical work of the experts called upon by thn ILO to prepare monographs on different aspects of the world employment problem. In fact this study is meant to be one of a series of publications arising out of the Population and Employment Project of the World Employment Programme.

There is every reason however to be concerned about the inadequacies of defining and quantifying the labour force in both more developed and less developed countries. The older criterion of 'gainfully employed' and the newer criteria of 'economically active and inactive' have their shortcomings, and since domestic household chores are considered to be non-productive by both criteria, women working at home are not counted among the economically active and therefore fail to be included in the labour force. Fortunately at least three chapters of the book are devoted to discussing female labour force participation and its determinants and constraints. Generally it is to be expected and there is confirmatory evidence to support the hypothesis that an inverse relationship exists between fertility and female labour force participation. Fertility together with the demand for child care exercise a constraining effect on female participation rates. But this cannot be regarded as a universal principle. As the study shows, in developing countries especially where the family is self-employed, fertility need not be a handicap to participation by women in working on the farm.

Obviously ill health and malnutrition can be expected to reduce the probability of participation, the intensity of job seeking by the unemployed, the length of life, and the duration of work in any given period. But how far is it true that the 1,500 calories per day consumed by farmers of the Third World tropical countries impair their work capacity ? Some FAO experts have suggested this amount as sufficient

for nutritional requirements. In fact, there is already a growing awareness of over-consumption in the more developed countries.

All men work for a wage income, and therefore an individual's supply of labour is a function of his real wage rate. It is argued theoretically that if "wages" are considered to be rewards per unit of effort, regardless of whether or not wage labour is involved, then an increase in the wage rate has two effects, an *income* effect and a *substitution* effect on labour supplied. For someone already working, the income effect of the wage rise may turn out to be negative, since the cost of leisure will have been increased by the rise in the real wage rate. But since the higher wage rate would also have implied that the returns to additional work effort have been increased, the negative income effect will be offset in all or in part by the substitution effect. In actual practice and from recent statistical data, it appears that the major determinant of labour force participation is rather the opportunity cost of economic inactivity especially in Third World countries, which means the income which the individual could expect to earn from labour force participation.

One important conclusion emphasised in this study is that the net effect of changes in employment on labour force participation is indeterminate and that it is not possible to predict the effect of an expansion of employment on the level of unemployment especially in an economy characterised by high unemployment. Possibly rising per capita income may reduce the level of unemployment by the withdrawal into economic inactivity of "additional" family workers, as in Indonesia or India. The longer run reactions of rising incomes to employment are no clearer. One has also to keep in mind the importance of labour commitment, especially when discussing the causes of differentials between male and female labour force participation. Such sexual dualism compounded with the newly coined concepts of "static" and "progressive" jobs and the possibility of entry into each category will also determine the number joining the labour force.

Finally, a word must be said in approval of the three highly interesting chapters on female labour force participation. The study has found that such participation which is high today is likely to decline. But there is still much research to be done in this field, one of the important questions especially in the developing countries, being "When is fertility most likely to depress female labour force participation." The answer to this query and several others raised in the book will provide ILO with ample scope for future research in which the technical know-how and labours of local researchers could be more fully utilised.

EARLY CHILD CARE IN POLAND. Maria Ziemska. London: Gordon and Breach, 1978. Pp. xi+148. £9.70

This report on early child care in Poland shows that the socialist countries of Eastern Europe truly love their children. This is particularly so in Poland where 6 million Poles, including 1.8 million children, lost their lives between 1939-46. Like many socialist countries, the participation rate of women in the labour force is high, 75 per cent of all married women 21-47 years who live in the urban areas being economically active. Because of the high labour force participation of married women, an egalitarian marital model has evolved. Responsiblity for child care and child rearing is shared between husband and wife but the household is still run mainly by women. The age at marriage for women is between 20-25 years and the average family size is 2.62 children. The Polish family is characterised by stability with only 2.6 per cent of adult women being divorced or separated. However, the trend shows a steady increase in the divorce rate from 61/1000 marriages in 1960 to 133/1000 in 1970.

The State policy as well as the general ethos supports the assumption that the events of early childhood have an overriding influence on the subsequent development of the child. Thus, a characteristic of the State financial arrangements for child care is to encourage the mother to be with the small child at home rather than to entrust child rearing to alternative institutions such as creches. It would seem that the creche in Poland is conceptualised not simply as custodial care of the child for the convenience of the working mother, but as a place oriented to the development of the child. The commitment of the State to the welfare of young children is seen in the job protection given their parents; working mothers have the alternative of 3 years' unpaid leave in order that they may take personal care of the very young child.

Ziemska also notes that the characteristic feature of a Polish urban family is the important role played by the grandparents in the socialisation of the child. No less than 50 per cent of employed mothers were found to make use of the services of the grandmother who either goes to the child's home or takes the child to her own home. The system of creches and nursery schools is well run with cadres of professionals to staff these alternative institutions of early child care. The cost of the services is minimal because of substantial State support. Thus, the cost of placing a child in the creche amounts to 3 per cent of a monthly salary—about 85 zloties, through the actual cost per child averages 950 zloties. This means that the State subsidises about 80-90 pet cent of the cost of maintaining the child at a creche.

There is a good discussion in this book on nursery schools, training programmes for professional workers in the field of child care and an outline of research on infants and preschool children. Though the conditions in Poland cannot be said to be common elsewhere in Europe, and are certainly widely different from conditions in the less developed countries, there is no doubt that Ziemska's insightful analysis of child care in Poland should be necessary reading for those concerned with policy and programmes in the field of child care.

AN ALTERNATIVE SYSTEM OF HEALTH CARE SERVICE IN INDIA: SOME PROPOSALS. J. P. Naik. New Delhi: Allied Publishers, 1971. Pp. vi+81. Rs 10

This book is a compilation of four papers on the above theme by J. P. Naik, D. Banerji, extracts from the Srivastava Committee Report, and a memorandum by Jacob Chandy. All four agree that the present health services based on the Western model have not served their purpose, and that alternatives should be found. Those who chose the present system assumed that health care would infiltrate downwards from the urban upper classes whom it was supposed to serve in the colonial times, to the periphery i, e., the rest of the population. When this did not happen it was assumed that a bigger investment and better implementation would deliver the goods. During the last few years many have realised that what is required is is not "more of the same" but something "qualitatively different".

Based on this assumbtion the writers propose four alternatives. The Srivastava Committee thinks that the proposals of the 1943 Bhore Committee should be adapted to our situation and implemented without further delay. Though an integrated approach of curative, promotive and preventive aspects is essential, priority should be given to public health education by using local resources such as para-medical personnel and the indigenous medical systems. The local infrastructure of the Primary Health Centres and sub-Centres should be adapted to this need, the uni-purpose cadre should be replaced by multipurpose workers and ways should be found to make doctors, with a few years' experience, to go the rural areas.

Putting flesh on the dry bones of the report, J. P. Naik in "The Fourth Sri Lakshminarayanswami Mudaliar Oration" discusses factors required to make the developmental process in general, and health services in particular, real to the most disinherited groups. The class of beneficiaries (target groups) should be identified, the health system should move away from its present curative to a preventive and protective approach, technology, infrastructure and

change-agents should be suited to the needs of this group, and people should be involved in the whole process. Medicine and drugs need to be de-professionalised, de-mystified and de-commercialised. He ends with an appeal to the medical profession to take the initiative in this direction.

Knowing full well that the choice of a medical system is a political decision, D. Banerji suggests that an alternative rural health system can emerge only out of a new political set up that can bring the health system down to the masses. The spirit of the Bhore Committee report remained unimplemented since its priorities differed from those of the ruling class. After all, alternatives in a country ruled by an oligarchy are only meant to benefit this class. Hence, a genuine alternative can come only from the democratisation of the political system and the involvement of the common man.

All three papers are stimulating and thought-provoking. There is a minor shortcoming in Banerji's essay that is only concerned with the general principles of democratisation without discussing a strategy for the involvement of the common man in health education and administration.

After these papers, the final memorandum of Jacob Chandy comes as an anti-climax. He would like a course in health sciences to be introduced in high schools and an appropriate B.Sc. in health sciences at the College level to prepare teachers for it. Nobody can quarrel with his assertion that the creation of health awareness is an essential condition for better health. But one may wonder whether the main target group should be the 20 per cent of our children who can afford to reach the high school, with an added palliative of the teacher also becoming a community health worker. While other research workers have realised that professionalisation and the consequent mystification and high costs of medicine are among the factors contributing to poor health, Chandy seems to suggest further professionalisation of health education. His experiment might have suceeded in highly literate Kerala. But can it be replicated elesewhere in India?

But for these minor shortcomings, the book is a valuable contribution to the field of development strategy and medical care in India and the Third World.

THE SOCIAL CONTEXT OF EDUCATION. Essays in honour of Professor J.P. Naik. A.B. Shah (ed). New Delhi: Allied Publishers 1978. Pp xxii+276. Rs 75

A commemorative volume on J.P. Naik's seventieth birthday is sure to arouse interest among his many admirers. But predictably,

when twenty contributions are packed into less than three hundred pages, quality is an early casualty. Nor is there any thematic consistency among the articles. It would have been particularly interesting as well as relevant if topics like the concept of equality in education, consequences of multiple-point entry into schools and so on had been dealt with in greater detail. Apart from being causes for which Naik has fought all his life, they are of significance in present-day India. Instead, the book is a *pot-pourri* of philosophical observations, findings of empirical studies and economic theory. The overall impression is of a job done in haste.

An entertaining series of ancedotes by Naik, backed up by details of his work in Delhi by P. L. Deshpande, an old associate, provide interesting insights into the wide range of Naik Saheb's interests. Ivan Illich, a personal friend, restates his thesis that society and culture need to be de-schooled, while Gunnar Myrdal points out that in developing countries, the educational system reinforces power relationships. Mary Jean Bowman's countribution is perhaps the only scholarly and comprehensive work in the present volume, where the impact of economic theory is applied in the sphere of education. C. A. Anderson gives a perceptive account of why elementary education is neglected in India.

Case studies by Suma Chitnis, B. D. Nag Chaudhury, T. A. Mathias, Anil Bordia, A. R. Dawood, Vina Mazumdar and others provide substantial material for those interested in the Indian educational scene. For instance, Mathias' work on Christian education gives the interesting information that one out of every 20 University students in India studies in a Christian college; in Maharashtra, Chitnis points out that while the Scheduled Castes in the State account for only 3.8 per cent of the country's total Scheduled Caste population, they receive about 17 per cent of the government's funds for post-matric education.

Surprisingly, the book is its weakest when established Indian social scientists start philosophising about strategies and solutions. M. S. Gore is concerned with how social messages should be conveyed through the teaching of history and the social sciences. This is a problem which bothers many involved in the educational system. But Gore's assertions on the structure of democratic society itself are themselves somewhat far-fetched. For instance, he feels that decision making in a democratic society should involve all those affected by it. One may well ask whether such an ideal situation has ever existed. Again when Gore discusses the desired in-class and out-class behaviour of teachers, he overlooks the need for society to review the status of its pedagogues: commitment is surely dependent on what people get out of a system.

M.P. Rege, in a plea for social justice, feels rightly that an essential input for a just social order is a "massive programme of popular education." No one could have any quarrel with this tenet. But when Rege goes on to assert that it is only with education that one can exercise one's rights, the argument wears thin. Is knowledge a guarantee of rights? Can a literate Harijan child effectively fight discrimination at the village well? If anything, awareness increases the sense of frustration and impotency among the underprivileged.

For some reason A. B. Shah feels that we owe our notions of rights for women and the oppressed to the West. Pre-Vedic history is overlooked in favour of the so-called liberating influence of a short period of British rule. At the end of it all, one cannot help feeling that J. P. Naik deserved better. Certainly those in his generation who have chosen to felicitate him, appear untouched by the values he has propagated over the years. Finally, at the cost of being accused of labouring the point, any volume of contributions should hang together if it is to have a lasting impact.

Malavika Karlekar

SEPARATION WITHOUT HOPE? Essays on the Relation Between the Church and the Poor During the Industrial Revolution and the Western Colonial Expansion. Julio de Santa Ana (ed). Geneva: World Council of Churches, 1978. Pp. 192 SwF 12.50

In this second book in the series on the social mission of Christianity, the authors study the 19th century Christian attitude towards the changes introduced by the industrial revolution. In a survey of the era (1750-1914) Andre Bieler claims that awareness of the problem was gradual because of the agricultural background of the Churches and their scriptures, later acceptance of the industrial middle class values, the anti-clerical character of the revolution and mainly because of the qualitative change in the poor—no more the poverty of the feudal system, but the proletarisation of the working classes in the European cities, colonisation of the other countries for their economic exploitation, and the oppression of the "natives." The new industrial cities and the working class areas grew away from the parishes that were close to the feudal estates. Consequently, the workers were not "lost" to the Churches, but grew independently of them, and were later alienated from them. A minority among Christians always felt with the poor. Though they were rejected by the majority, they were instrumental in the slow transition from a charity approach to legal reforms, study of the deeper problems and the final consciousness among Christians, of the structural causes of poverty.

The other papers study these developments in individual European countries and other continents. Kent notes the elements that prevented the English Churches from getting involved in the workers' struggles. Brakelmann discusses the German Christian social reformers' positive social vision coupled with their hostility towards political changes that led to the failure of their social mission. White finds a similar situation in North America. But the mid-19th century rediscovery of the meaning of poverty led to a more radical "social gospel" that became the rallying point of many reformers. Zabolotsky attributes the Russian Orthodox lack of initiative to the Hierarchs' dependence on the State and the penury in which the lower clergy lived. Consequently, positive action came only in the closing decades of Tsarist rule. Miegge concludes the discussion of the European-North American Christianity with a scholarly critique of Weber's thesis on Protestant influence on capitalism.

The remaining essays are devoted to the "Third World." Khodr studies Arab Christianity within its peculiar socio-political context. Itty thinks that the Catholic missionaries in Asia collaborated only with the Spanish and Portuguese colonialists, and a few Protestant sects with the British. Many Christians joined the Congress in its infancy, but left it, and even supported the British after the emergence of the Hindu communal elements at the turn of the century. They re-entered it only in the 1940s when Nehru grew powerful. The Asian Churches have been prominent in the social services and the author calls on them to make a deeper social option. In Africa on the contrary, Christianity came with the freed slaves. Later the merchants would support the missionary, and finally a period of collaboration with the colonialists would follow. Schools would be the main source of conversions, and power in the Churches would pass from the hands of the "ex-slaves" to the European missionary. Kobia feels that the Churches that had started as a refuge of slaves should once again go back to the poorest who are their first responsibility.

In the conclusion the editor draws the reader's attention to the need of an interdisciplinary study to help Christians understand the social reality within which they are working, in order to identify the causes of poverty.

This book is one such bold effort at an interdisciplinary approach using anthropology, history, sociology and theology. The authors, themselves persons involved in practical work, are able to distance themselves from their institutions in order to analyse them. This makes their work doubly valuable. Except for some essays like the ones on North America and Russia that betray a slight nationalist slant, one notes in the others a genuine attempt at objectivity.

Besides, the book reflects the 19th century when "the world was

Europe." The "Third World"—80 per cent of humanity and victims of European domination in the industrial age—is given only secondary importance. Single chapters deal with whole continents, while European countries merit a chapter each. One hopes that future volumes will make the Western Churches aware of injustice done to these continents in the name of Christinity and that they will concentrate on the colonised countries, without giving up the bold approach of this volume.

CORRECTION

"Migration and Ecological Structure: The Case of a Town in the Punjab," by Sarita Kamra *(Social Action*, 29, Jan-March, 1979, p. 49) read: "In the studies by Burgess and Sjoberg the quality of the pattern......" It should read: "In the above two studies the quality of the pattern is explained implicity, or explicitly as emerging due to the process of decentralisation, that is the outward movement of the elites from the centre to the periphery."
The error is regretted.

Editor

INDIAN SOCIAL INSTITUTE

Centre for Research, Training and Action in Social and Human Development

Started in 1951 the Indian Social Institute is a Centre for Research, Training and Action. Its primary objective is to contribute to the development of a just social order by focusing on the under-privileged groups of society.

The Institute functions through three departments with staff at Delhi, Bangalore and in different states in India. These departments are:

- Research and Publication
- Extension Service
- Training

RESEARCH & PUBLICATION

The Research department undertakes research in collaboration with voluntary organisations, government departments and international agencies:

Labour Economics — *Women and Family*
Migration — *Problems of Fertility Control*
Urban development

are some areas of concentration and concern. Often the interests of individual scholars determine particular areas of study and action.

The department has organised national and international seminars and conferences on:

Trade and Development — *The Family in India*
Poverty — *Population Growth and Women*

The research data and findings are widely disseminated through monographs/Books/Papers

SOCIAL ACTION is a quarterly journal. It is a journal of social trends and has been published continously since 1951. A microfilm edition of Social Action is also published by University Microfilms International, Ann Arbor, Michigan, USA. Refer to 'list of Publications'.

EXTENSION SERVICE

Initiated in 1960 at Bangalore, the Extension Service now operates from the Institute's headquarters at Delhi. It has well-qualified staff in various centres covering the entire Indian sub-continent. Its main activities are:

—Promoting socio-economic programmes and projects with the poor in rural and urban areas based on needs and priorities.

—Making feasibility studies of planned projects.

—Helping the growth of local structures to serve the poor through appropriate programmes.

—Giving consultancy services to local sponsors to plan and organise their projects and tap internal and external resources.

—Providing consultancy services through on-the-spot studies to several funding agencies in India and overseas. It processes several hundred projects each year.

—Participating in training programmes organised by groups, institutes or associations.

Residential and other Facilities

Adjacent to the Institute's head-office is the ISI-Residence with facilities for Board and Lodge for participants of courses, seminars or conferences. Full-time staff make the hostel a welcome place for participants.

Excellent facilities for classes, courses, seminars and conferences are made available to social organisations, trade unions and others coming from all over India and overseas.

TRAINING

Preparing personnel for development efforts or enabling others to increase their efficiency on-the-job is yet another means to achieve the goals of the Institute.

To accomplish this task the Institute has several approaches such as

The Family Life Centre (Delhi)
Programme for Women's Development (Delhi)
Training Centre (Bangalore)
Documentation Centre (Bangalore)
Mobile Orientation Training Team.

Residential courses are offered in Delhi and Bangalore. The staff also make themselves available for the purpose anywhere in India.

ISI-FAMILY LIFE CENTRE

The Family Life Centre of the ISI offers the following:

Courses/Services/Programmes

Family life education for youth, adults and trainers.
Natural Family Planning for users, trainers, directors.
Counselling: marriage and sexuality.
Marriage Enrichment programmes.
Child Care and Child Guidance programmes.

PROGRAMME FOR WOMEN'S DEVELOPMENT

Aims to increase the participation of women at different levels in the development process through

Training courses for women community organisers.
Studies of disadvantaged women.
Publication of articles and books to disseminate ideas on the changing role of women.
Promotes programmes for women.

ISI-TRAINING CENTRE

24 Benson Road, Bangalore 560046 Tel.: 55189

Planned in 1961, the Training Centre has now well-established facilities for various types of courses, seminars, meetings and conferences.

Regular courses of 3 months duration are held twice each year.

The content of the courses adapted to changing trends come under the broad category of communitp development and organisation, mass education and organisation. Courses now emphasise the need of political action to change unjust structures. Theory and practice are stressed.

The Centre through its dynamism attracts young and old not only from India but also from Nepal, Thailand, Malaysia, Indonesia and Bangladesh. Staff follow up students in the field and hold meetings to strengthen them in their activities.

DOCUMENTATION CENTRE

Begun in Delhi in 1976 the Documentation Centre has moved to the Bangalore Training Centre.

Its main aim is to collect and document relevant material on various themes in the social economic and political fields which are circulated to a large number of readers.

One of its chief services is directed at groups of persons engaged in social work, social action and non-formal education. It also assists groups in rural or urban areas to conduct surveys and plans action based on their findings.

MOBILE ORIENTATION TRAINING TEAM (MOTT)

Contact address: ISI, Lodi Road, New Delhi.

The Institute's latest innovation is a mobile team of experts in development, agriculture and community health.

Constantly on the move in different States of the Union, the team stimulates groups on several levels to study, reflect and act according to the needs. They conduct training programmes as a team or individually in field situations with varying logistic difficulties.

CHILD-to-Child

Audrey Aarons and Hugh Hawes
with Juliet Gayton

CHILD-to-child is an in international programme for teaching and encouraging school children to concern themselves with the health of their younger brothers and sisters, or other younger children in their community.

"In view of the fact that some 350 million children in the developing countries remain beyond the reach of even a minimum of essential services in the fields of health, nutrition and education, WHO welcomes the initiative of CHILD-to-child and commends it to all concerned with the welfare of children and young people throughout the world. What could be more worthwhile than helping children to understand their younger brothers and sisters? By teaching them to improve the standards of health and the quality of life of these younger children, they will today contribute to a better world tomorrow.

I firmly believe that CHILD-to-child, if fully implemented in our inner citities and our more remote rural areas, can bring a change in the health and development of the world's children, not only in 1979 but as a continuing and growing improvement."

From the Foreword of Dr T.A. Lambo, Deputy Director-General, WHO

Order copies from TALC, c/o Institute of Child Health, 30 Guliford Street, London WC 1N 1EH

MACMILLAN

Published by The Macmillan Press Ltd for the International Year of the Child, 1979

SOCIAL ACTION

A Quarterly Review of Social Trends

JULY-SEPT 1979 | VOLUME 29 | NO. 3

CONTENTS

Introduction

This Special Number of SOCIAL ACTION to celebrate the International Year of the Child, 1979, is focused on the needs of underprivileged urban and rural children in India. The National Policy for Children (1974) states that "Equal opportunities for development to all children during the period of growth should be our aim, for this would serve our larger purpose of reducing inequality and ensuring social justice." The instruments proposed to achieve the broad objectives of the National Policy for Children concentrate on health, nutrition and education. Thus in the formulation of programmes, priority is given to preventive and promotive aspects of child health; nutrition of preschool children, institutional forms of day care for children of working mothers; and the training and rehabilitation of handicapped children.

The papers in this Special Number fall into three sections. The *first* section consists of three papers which outline critical perspectives on the health and educational needs of rural and urban children in India and the less developed countries. Morley makes an enquiry into the structure of the distribution of health and educational resources in India and shows how the health and educational needs of underprivileged children can be improved by a combination of education, redistribution of health resources and the on-going education of medical personnel to cope with the problems in rural areas. Swaminathan discusses child development in the conditions of urban poverty and makes an examination of both policy and programmes in nutrition, health, education and training for different categories of children. She points out that policy for the underprivileged children has been influenced by a welfare prespective and that programmes tend to be characterised by inadequacy, inappropriateness and fragmentation. Butt shows how an integrated approach can be developed to meet the basic health and educational needs of preschool rural children. In this approach the emphasis is on the preventive aspects of health care and participation of the people; programmes for women and children are viewed as an educational process in which they are given opportunities to define objectives in terms of their needs and to share in the implementation of, and financial responsibility for all programmes.

The *second* section consists of three papers which are concerned with child health. Simmons studies infant and child mortality on the basis of a random sample of 120 villages in two districts of Etawah and Kanpur. The study examines age-specific sex differential mortality among children and finds that mortality is inversely related to socio-economic class. The important contribution of this paper is the identification of the causes of death and

three models are developed to explain neonatal and postnatal mortality. In her paper on health education, Matthews discusses the specific health needs of different categories of children. Since various socio-cultural factors influence the effectiveness of health education, she develops a theoretical model to explain how a change in the cognitive, motivation and action structures can lead to new attitudes and innovative behaviour that promote improvement in health. On the basis of extensive experience in the training of health workers to provide basic health services in the rural areas, Ram identifies the training requirements of health auxiliaries and the kinds of services they can provide particularly to women and children. In the training scheme he outlines, the emphasis is on skills for child care in a long term developmental framework, involvement of the people and dissemination of knowledge and skills to promote greater freedom from the established health system.

The *third* section has three papers that discuss the theme of early socialisation of children. The paper by de Souza reports the findings of a study of creches for underprivileged children in Delhi and discusses their wider implications for both theory and policy. The care of the neglected child is discussed by Jacob in the context of the legal proceedings of 'neglect.' She concludes that coercive state intervention should be limited and determined both by the conditions of poverty and the well-being of the child. As the National Policy for Children points out, "Existing laws should be amended so that in all legal disputes . . . the interests of children are given paramount consideration.' In his paper, Singh discusses a special case of socialisation which is so important in a multi-religious society such as we have in India. His study of Muslim, Hindu and Sikh children suggests that children derive both their religious identity and prejudices from their parents and that, therefore, strategies to to promote national integration have to focus on the early socialisation of children in the family.

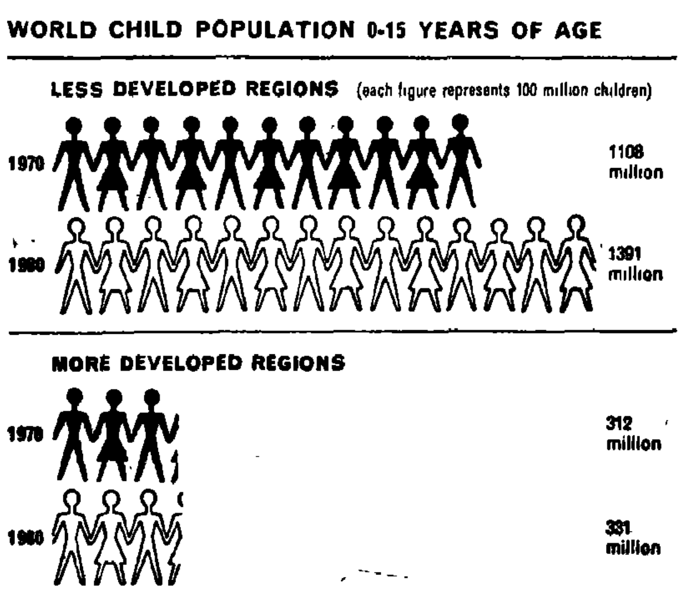
Alfred de Souza

International Year of the Child: A Time to Look at Child Health

David Morley

Unfortunately too many of the decisions over health services in any country are still made in the more developed countries. This is partly historical as the services introduced to Third World countries were a copy of those in Europe or the U.S. In these countries children under fifteen make up rather less than a quarter of the population, whereas in Third World countries children make up a half of the population and in 1980 probably four out of five of the children in our world will be living in developing countries (Fig. 1).

Figure 1: The number of children in 1970 and 1980. Four fifths of the children in the world are in developing countries and 300 million extra children are being added every decade.



As will be clear in this figure the number is increasing rapidly and in each decade 300 million children are being added, equivalent to the total population of children in industrialised countries.

Dr David Morley is Professor of Tropical Child Health at the Institute of Child Health, University of London.

Within the country the process of decision making has depended heavily on senior doctors, most of whom work in the so-called 'disease palaces' and whose Western training and contacts give them a particular interest in increasing the amount of high technology available to their patients. As a result, the rural areas have received progressively less of any resources available.

The elite and politically powerful in all societies are likely to 'hog' the resources available; nowhere is this more true than in the health sector.

Maldistribution of resources

In the U.K. the introduction of the National Health Service was assumed to be an effective step towards the better distribution of health care. Unfortunately it has not worked out that way and after 30 years there is still as much difference in mortality between the different social groups. Heller[1] examined the distribution of resources and showed that for example there was no correlation between the expenditure on maternity services and perinatal mortality level in different regions. In mortality between the ages of 1-14 years, the level in social class V was double that in class I

Perhaps it is not surprising that the inequity of distribution of health resources is even worse in Third World countries. India is fortunate to be one of the countries where both figures are available and it is still possible to publish them Dr. M. P. Mangudkar,[2] as Chairman of a committee set up by the Maharashtra Government, showed the horrific variation between around 5 dollars per capita expenditure if the individual is so fortunate as to live in Pondicherry compared with rather less than 2 cents U.S. if they are unfortunate enough to live in the villages of Maharashtra (see Fig. 2).

While the expenditure varies greatly between the various states in India, the greatest difference is in the rural urban imbalance.

In the cities too often there has been expenditure on 'disease palaces'. In these, doctors—the majority of whom earn their living through private practice in the evenings—may carry out rather indifferent medicine in an inappropriate way and teach this to medical students. Bombay has four Medical Schools but already has one doctor for every 600 of the population, producing more doctors in this situation is almost certainly detrimental to better health care. Where there is an excess of doctors 'market forces' do not work as the patient does not make the decision, and to maintain their private practice doctors will provide numerous and unnecessary treatments for self-

1. T.D. Heller, *Restructuring the Health Service* (London: Croom Helm, 1978).

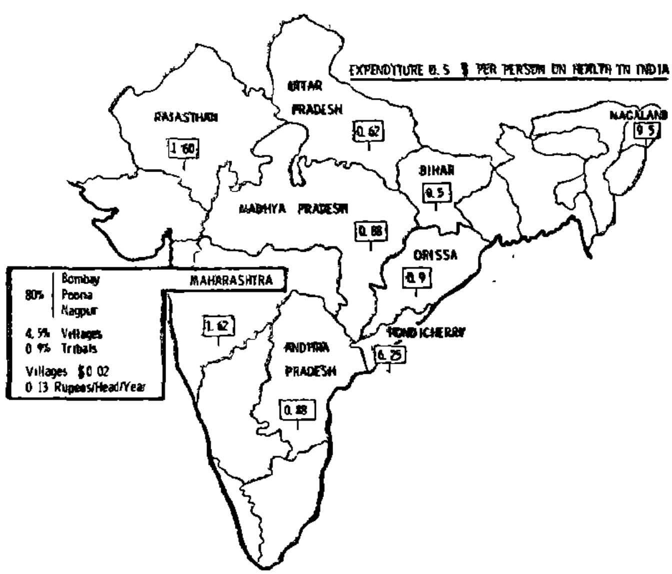
2. M.P. Mangudkar, *Health for the Millions*, 4 (n. 5, October 1978), p. 3.

limiting conditions such as upper respiratory infections. Egypt with an infant mortality rate well over 100, expects 2,000 doctors each year.

Inadequate food the major problem

Perhaps we spend too much time asking why children are malnourished and too little asking why other children are healthy. McKeown[3] has re-examined the reasons why Europeans are now healtthy and comes out with strong arguments that the varieties and volume of food available to the population has been the major factor, rather than improved sanitary methods. Early in the nineteenth century in Europe the steel roller mill was introduced and the dietary fibre content of the cereals reduced. At the same time the dairy products, milk and butter with margarine and refined sugar, all became more readily available. As result it was now possible to provide the child with an adequate energy (calorie) intake.

Figure 2: Although there is great maldistribution of resources between states, the greatest injustice is the distribution within the states as shown in Maharashtra state—80 per cent of the budget goes to 3 towns and the villages left with 13 paise or 2 US cents per head per year.

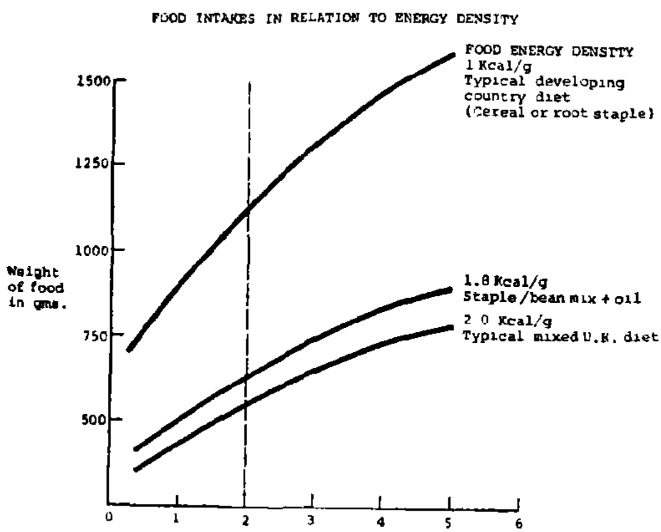


A practical step that anyone who wishes to convince themselves of the difficulty in children receiving sufficient energy is as follows: Take two cupfuls of wheat flour (342 grams); maize flour (338 grams)

3. Thomas McKeown, *The Modern Rise of Population* (London: Edward Arnold, 1977).

sorghum flour (340 grams) or 1½ cupfuls of rice, and cook this in a manner appropriate to be eaten by a child between the ages of 1 and 2. In the most cultures the result will be a kilogram or even more of food and mothers will immediately recognise that no child can eat this volume. There is research to show that children offered unlimited quantities of staples in India will not achieve minimum energy requirements. We therefore should have a new objective, that is the production of foods with a high energy density. This can be achieved by adding sugar or jaggery and particularly oil. Oil has a practical effect in that it softens the food and less water needs to be added (Fig. 3).

Figure 3: Appropriate foods with a high energy density can be prepared to replace the commonly used cereal which is so bulky.



Recognising malnutrition and its significance

Families in which undernutrition occurs are those in which there is widespread socio-economic deprivation and separating the effects of the undernutrition from all these other factors has been a major challenge to scientific enquiry over the last decade. However, there is now irrefutable evidence that prolonged periods of malnutrition occurring in the last trimester of pregnancy and within the first two years will have a serious effect on the intellectual potential of the individual and is therefore of great political importance in national development.

Although undernutrition is widespread throughout the Third World it is still not sufficiently recognised by communities and even

those who are in a position as community leaders such as schoolmasters and local council members, have very little understanding of the size of the problem. Doctors have been largely concerned with research investigation and curative treatment of the tip of the iceberg of malnutrition represented by children with kwashiorkor or marasmus. Much too little attention has been paid to the mass of children who suffer from inadequate growth or stunting. Recently, methods have been developed by which community members, school children and perhaps even mothers can identify children who show inadequate growth. Of these methods the most widely used, the simplest, and probably the most satisfactory, is measurement of the mid-upper arm circumference. The advantage of this technique is that the arm circumference in the normal child increases relatively little (1 cm) between the ages of one and five. For this reason we do not need to know the age of the child being measured within these limits. A wide variety of material including old X-ray film, plastic, or even grass can be knotted or marked and perhaps coloured in such a way that the arm below 12.5 cms can be recognised. A further step forward has been possible by now teaching people to calibrate their own thumb and know where the index nail comes on the ball of their thumb for different diameters. This can be achieved with pieces of circular wood or cardboard rolls cut to an appropriate size. If only all those who are concerned about the nutritional status of children in India during this Year of the Child would discover what 13.5 cms and 12.5 cms felt with their fingers and then, at every opportunity, felt the arms of less privileged children in the society, the urgency of this problem in India would be appreciated more rapidly.

Undernutrition and diarrhoea

In a Third World population on average each individual will have one episode of diarrhoea a year but in the children during the weaning period there are likely to be at least two and, if there is malnutrition, there will be four. In the intensive study of children in the villages of Narangwal in the Punjab diarrhoea was responsible for 40 per cent of deaths and it is likely that over a third of all deaths in young children in India are associated with diarrhoea. Those children who survive each episode of diarrhoea are likely to be significantly worse nourished following the episode.

The management of diarrhoea over the last ten years has been revolutionised. We now appreciate that the ill-effects of diarrhoea are largely from loss of sodium and water from the body, dramatic developments have shown that this can be replaced by feeding appropriate solutions of sugar and salt. The glucose molecule from the

sugar carries with it into the body a molecule of sodium by a mechanism which is unaffected by diarrhoea. In the villages served by village health workers around Jamkhed in Maharashtra the Aroles claim that over a period of three years they have not had a single child admitted with dehydration. The largely illiterate village health workers have been taught how to administer appropriate solutions of sugar and salt to any child developing diarrhoea. Special spoons are developed in Indonesia for measuring the appropriate quantities of salt and sugar and these are now available in such a form (Fig. 4) that different languages can easily be embossed in the plastic giving instructions for their use.*

Redistribution of educational resources

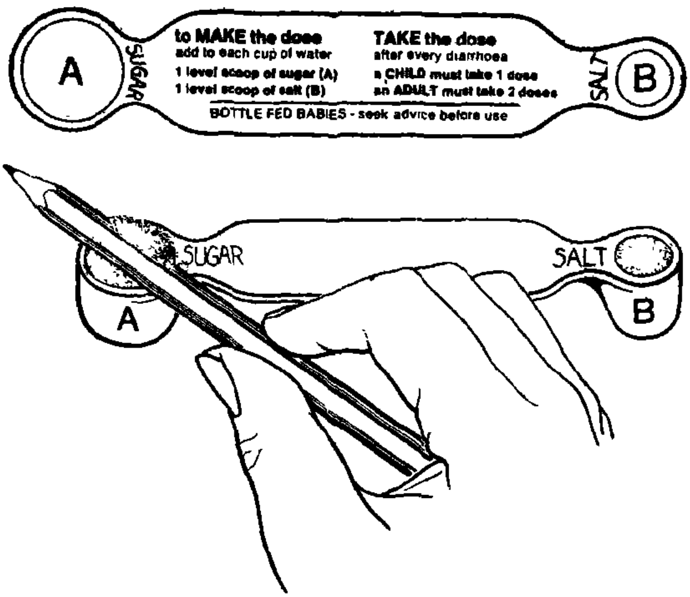
Currently there are four Medical Schools in Bombay training doctors, most of whom expect and are determined to work in the future within Bombay If sensible planning were possible an immediate step would be to close all these and many other teaching establishments in India. Releasing of these resources would allow at least a small proportion of them to be applied in an area where universities and medical schools the world over have so far largely failed. This failure has been in the on-going education of the doctors, particularly those serving the mass of the people in the rural area. Unfortunately the existing training of these doctors has not prepared them for the important place they hold in rural societies, nor has it inspired them with a desire for further study which could help them to answer some of the immense problems they meet, or fail to meet, in their day to day work. It is not just the doctor but the whole health team who should be involved in this teaching. They will not gain this teaching by attending refresher courses in paediatrics or even community health taught by professors in the cities who have themselves failed to come to grips with the problems in rural areas.

An alternative, still largely untried, is to involve the whole health team working in the rural area in a distance teaching programme.[4] In the educational world there has been a rapid increase in understanding of how what we used to call a 'correspondence course' can be developed into a distance teaching programme using different media and carefully designed course textbooks. Those provided for the 60,000 students working in their own homes for the U.K. Open University have proved so successful that they have been adopted by

*A sample of this spoon will be sent free on request to: TALC, Institute of Child Health, 30 Guilford Street, London WC1N 1EH.

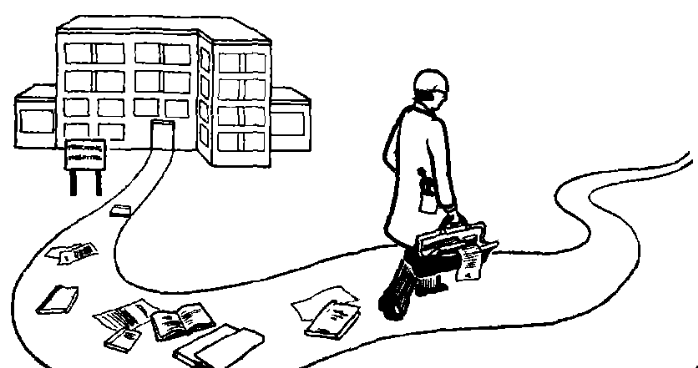
4. D. Morley, 'Continuing Education for the Health Team in Developing Countries,' *American Journal of Public Health* 69, (n. 3, March 1979).

Figure 4: A simple plastic two ended spoon with the instructions imprinted on it; may be used for early management of diarrhoea in the home.



universities on both sides of the Atlantic. Simple and well evaluated textbooks are now available in English, for example the excellent book by David Werner[5] *Where there is no Doctor* or Maurice King's[6]

Figure 5: Unfortunately so few doctors are taught during their time as medical students, that they must go on learning if they are to keep up with the needs of their patients.



5. David Werner, *Where There is no Doctor* (California: Hesperian Foundation, Palo Alto, 1977).

6. Maurice King, *Primary Child Care* (London: Oxford University Press, 1978).

recent book, *Primary Child Care*. These could be translated into the local language so that the whole health team from the most junior (but important) member of the primary health centre team could be involved. In such teaching the position of the doctor or senior nurse would be that of tutor. However, they would soon find that to keep up with their students they themselves would have to study. The successful course would lead to group involvement and in time, support and involvement of the community being served. Through such teaching techniques in better nutrition and diarrhoea described above and many others could quickly be made available across large populations. In this way we may hope that emphasis will at last be placed on wider coverage in health care for the many, by involving the doctor in appropriate on-going education (Fig 5).

Children of the Urban Poor: Problems and Opportunities

Mina Swaminathan

At last count in 1971, our urban population numbered 100 million, a figure larger than the total population of all but six countries in the world—the four metropolitan cities alone accounting for nearly 20 million. In the urban areas there are 42.5 million children below the age of 14. Various estimates have been made from time to time of the proportion of families that live in conditions of poverty in slums, *bastis*, shanty-towns and pavements. These range from 35 to 50 per cent of the urban population. Taking 45 per cent as a rough estimate, one may say that about 28 million children in urban India are being reared in conditions of poverty inadequate to provide for their healthy growth and development as productive citizens of the future.[1]

Yet for a long time these facts have been glossed over by the 'mystique' of rural India, a mystique founded on the indisputable fact that 80 per cent of India lives in the villages, but arising out of a confusion which indentified all urban groups as affluent or privileged. It is only in the 70s that the 'urban poor' as a distinctive group have become 'visible'. The special needs and problems of the urban child have thus tended to be neglected, on the assumption that the facilities of urban life would automatically be available to and availed of by the entire urban population.

In what ways does the environment of the urban child of the poor differ from that of the rural one, and how does this affect his growth and development? Is there in fact a special problem, other than that of poverty in general, and does it call for special solutions? What attempts have been made so far to deal with these and with what effects? What are the implications for the future? The following pages will attempt very briefly to elucidate some of these issues.

Mrs Mina Swaminathan is Director of Programme and Training, Mobile Creches, New Delhi and Editor of *Balak*, the journal of the Indian Association for Preschool Education.

1. *Perspectives on the Child in India* (New Delhi: Central Institute of Research and Training in Public Cooperation, 1975).

Urban poverty and child development

In assessing the ecnomic and social status of the urban poor, it may be useful to consider them as within either the 'organised' or the 'unorganised' sector. The urban proletariat includes, especially in the large industrial and commerical centres, ports and railway towns etc., the more settled 'blue-collar' workers employed in the organised sector, public or private. This group which has often been resident in the city for more than one generation, is more affluent, better educated, with more secure income, often housed in industrial estates, and with access to certain minimum medical and educational facilities Some of them can be categorised as lower middle-class, while others belong to the upper strata of the poor. This distinction is important in view of evidence which shows that existing services are monopolised by the upper strata.

On the other hand, the really poor belong to the unorganised sector and are usually rural migrants with more or less strong ties to the village home. They tend to work in petty trades and unskilled occupations, to be self-employed or employed in small shops and business, with insecure jobs and uncertain incomes, living in various kinds of crowded *bastis*, shanty-towns, huts, or other euphemistically described 'unauthorised colonies.' In Calcutta, and to a lesser extent, Bombay, vast numbers live on the pavements. From the economic standpoint, the factors which affect the child most under conditions of extreme poverty are not only the congested living conditions, poor nutrition, poor sanitation and subsequent propensity to disease, but even more so, the insecurity of economic environment.[2]

From the point of view of the child, three other factors vitally affecting development, are the large proportion of urban mothers who are working, the predominance of the nuclear family, and the phenomenon of child labour. Each of these needs a little comment. In rural areas too, women in the lower economic strata are obliged to work, and it is a widely observed phenomenon that the nuclear family is more common as one proceeds down the economic scale. But in the rural occupations, the family as a unit has a greater chance to live and work and move together, with the mother often keeping the children close to her while working in the fields or forests. The nature of urban female occupations rarely allows for this. Women are mostly employed as domestic servants, hawkers and vendors, sweepers, unskilled labour (if at all they are employed outside their homes) servicing, in other words, the more affluent sections of the urban population. This obliges them often to travel long distances and to be

2. *Study of the Young Child: India Case Study* (New Delhi: National Institute of Public Cooperation and Child Development, 1976); C.A. Aphale, *Growing up in an Urban Complex* (New Delhi: National, 1976).

away from home at odd hours, and this leads to unavoidable neglect of the children.

Child labour in the exploitive sense, is again a phenomenon that is more associated with the urban areas. With the exception of certain cottage industries like matches and *bidis* which are heavily dependent on children, child labour in rural areas usually refers to helping with the family tasks. Children are usually assigned such tasks as grazing cattle, looking after animals, fetching fuel and water, running errands, caring for young children and household chores. While this may often involve heavy work, it nevertheless carries the compensation of some dignity, freedom and responsibility which comes with being an active contributing member of the family economy. Children can take pride and pleasure in this work and learn some skills, though they are usually not paid for it.

In urban areas, fewer tasks of this sort need to be done (with the exception of baby-minding as an occupation for girls), and more children have to help the family by working, again in the unorganised sector, and again for an exploitative wage.[3] The urban child is caught up in a vicious triangle.[4] Hazardous health conditions in the squalor and misery of slums, poverty, lack of health care as a result of the ignorance and illiteracy of parents, and the insecurity and hardship of life form one side of this triangle[5]; the lack of adequate adult care, protection and guidance which can be attributed to the nuclear family and the absence of both parents and older siblings from the home is the second side[6]; the third side is the social and cultural milieu of the slums.[7]

Studies of slums have revealed the close ties and groupings formed on the basis of kindship, language, regional origin, caste etc.;

---

3. *Working Children in Bombay: A Study* (New Delhi: National Institute of Public Cooperation and Child Development, 1978), mimeo; *Working Children in Urban Delhi* (New Delhi: Indian Council for Child Welfare, 1977); A. Sebastian, 'A State-wise Child Migration and Child Migrant Labour in Cities of India,' paper presented at IASP Conference on the 'Child in India,' March 1979.

4. S. Anandalakshmi, Editorial in *Ekalavya* (1979), Annual of Mobile Creeches, New Delhi.

5. *Report on the Working and Living Conditions of Workers in the Building Construction Industry*, Unorganised sector survey series No. 1, 1977-78 (Simla: Labour Bureau, Ministry of Labour), mimeo; P.S. and Ila Mazumdar, *Rural Migrants in an Urban Setting* (Delhi: Hindustan Publishing Corporation, 1978); A.R. Desai and S.D. Pillai, *Slums and Urbanisation* (Bombay: Popular Prakashan, 1970).

6. *Workiug Mothers and Early Childhood Education* (New Delhi: National Institute of Public Cooperation and Child Development, 1978).

7. M.K.A. Siddiqui, 'Life in the Slums of Calcutta,' *Economic and Political Weekly*, 4 (December 1969); Oscar Lewis, *The Children of Sanchez* (London: Secker & Warburg, 1961).

the tendency to cling to one's own is naturally strengthened in the alien ocean of the big city. With length of residence and economic improvement, these sometimes grow into formal organisations and even develop political affiliations; in the more elementary state, there is merely the huddling together for security and comfort of those who share a common misery. The slum is an enclosed world with its own rules and regulations, its own outlets and channels for social relationships, its own cohesiveness, structures and priorities. The child, no less than the adult, is confined within this small suffocating world with its limited aspirations, knowledge and potential for growth. Ignorance, apathy, mobility, drift, illiteracy and distrust have led to the phenomenon that slum dwellers do not make full use even of the available urban amenities. Studies in Bombay have revealed the appalling extent to which slum mothers were unaware of the health care and other facilities available for preschool children [8] A similar situation prevails with regard to the poorest in the rural areas also [9]

In some ways, where the poor are concerned the distinction, in the commonly accepted sense, 'urban-rural' has little meaning, since so many of the urban poor are 'rural' in so many senses.[10] Yet when one considers the extra burdens on the child of the urban poor, summarised so far, there does seem to be a special problem. But the rural child has the advantage of plentiful space, fresh air and some amount of freedom, especially in the earlier years, to explore the world in his own way and is free from the pressures of overriding squalor.

In addition—in urban areas, there are several other potentially damaging elements—exposure to mass media, the ubiquitous film, poster, radio and magazine is one of them While this gives wiser knowledge and the quick response typical of the urban street urchin, the presence of stimuli alone is not sufficient for development, and sensory over-stimulation can be counter-productive. Simultaneously there is exposure to the glaring inequalities, the contrast between rich and poor which is so much more obvious in the urban setting, and which cannot but set up psychological tensions and frustrations in the child's mind. The urban child is also exposed to the dangers and temptations of urban living—the possibility of making quick money through various means, the lure of financial independence and the easily turned but dishonest penny, the numerous attractive consumer items to spend it on etc. On the other hand, in the congested

8. M.A Khandekar, *Disadvantaged Preschoolers in Greater Bombay* (Bombay: Tata Institute of Social Sciences, 1976).

9. *An Evaluation of the National Programme of Balwadis* (New Delhi: National Institute of Public Cooperation and Child Development, 1978), mimeo.

10. Mina Swaminathan, *The Young Child in India* (New Delhi: Basu Memorial Lecture 1978.)

surroundings of a slum, he is often obliged to watch at close range illicit and criminal activities of all sorts.

Allied to the lack of roots in the traditional culture and social structure, the wider family network and the rural recreations on the one hand, is the cultural barrenness of slums on the other—the lack of healthy recreation, of space, the absence of any sort of constructive activity or learning. The developmental consequences of being reared in such an environment are naturally alarming. The urban Indian sub-slum, is a matrix in which the 'culture of poverty' meets the culture of the Indian family. Micro-studies can throw light on the cognitive development and socialisation of the child in this matrix, but these have yet to be carried out. At the moment, it is sufficient to note that under conditions of equivalent poverty, as measured in the purely economic sense, the urban child may be much worse off than the rural child. However, this recognition has been late in coming.

Policy and programmes

Policy

In policy terms no special recognition of the urban child was made till the 1970s. A number of commissions, committees and other government sponsored studies which made recommendations for child services were set up between 1947 and 1970. Of these the most notable were the Child Care Committee (Tarabai Committee) 1961 and the Ganga Sharan Sinha Committee (1968). Both made detailed recommendations about all aspects of programmes for children but the question of underprivileged children was treated globally and there was no special analysis of the problems of the urban poor.

In education, policy has always remained somewhat aloof from the question of child development and child welfare. The Sargent Commission (1944) made a passionate plea for preschool education, but for twenty years no action was taken on it, and preschool education remained within the private sector. The Kothari Commission (1966) devoted a chapter to the subject and made some modest proposals, none of which have been acted upon either. The National Policy on Education (1968) which was drafted after the acceptance of the Kothari Commission report was significant for its omission of any reference to the young child.

In the light of this neglect of the educational element, policies, services and programmes for children have grown within the framework of a welfare approach. Here too, it is significant to note that the proportion of outlay on child welfare services as a proportion of total outlay on social welfare services has been declining from Plan to

Plan, though undoubtedly the total gross expenditure has increased significantly. This is not surprising. So long as children's services are viewed as primarily a welfare measure or attempt to provide relief, low priority for such non-productive expenditures is but natural. Programmes for children are not yet regarded as developmentally necessary and hence are not seen as investment for the future, pious platitudes notwithstanding.[11]

In the 1960s, considerable emphasis was given to the development of nutrition programmes with a rise in awareness of the extent of malnutrition, the alarm generated about the possible consequences of severe childhood malnutrition and the ready availability of imported foodstuffs for relief. This helped to bring the problem s of the urban poor into focus. The first significant departure was the Special Nutrition Programme. Originally announced as the Crash Nutrition Programme, it was later developed as a special supplementary feeding programme for deprived children in particularly vulnerable areas. Urban slums were designated as one of these vulnerable areas. The programme was essentially a gigantic relief and rescue operation which was later phased out in favour of more long-term activities to promote better nutrition. The study Group on the Preschool Child (1972) also stressed 'urban slums' as one of the three main vulnerable areas, and subsequent child welfare programmes have been oriented to these three main areas—urban slums, tribal areas and the rural underprivileged. These are the target groups to be served by the Integrated Child Development Services launched in 1975. Here too, though the urban poor have been singled out for special attention, no study of their needs and problems has been undertaken, nor has the programme been developed with flexiblity to meet varying situations.

Programmes

Within this policy context, the current status of programmes for children in urban areas may be briefly reviewed and commented upon.

Health. The provision of health services in urban areas, as measured by the number of beds, hospitals or doctors per thousand population is far higher than rural areas. However, several studies have highlighted the extent to which slum dwellers are unable to make use of these facilities.[12] The area of residence, the level of education in the family, the social climate in the slum and several

11. Mina Swaminathan, *op. cit.*
12. M.A. Khandekar (see n. 8 above).

other factors affect the extent of use. It is thus not at all clear what the actual availability of curative health services is.

Most important, in conditions of urban slum living, the health hazards of the environment are extreme. Preventive health, through control of communicable diseases, provision of clean drinking water adequate in quantity and quality, proper arrangements for sanitation, drainage, garbage disposal etc. are of vital importance. Here the conditions in slums are for from adequate, and thus there is a continuing threat of disease. Concerted action on several fronts by the concerned local, municipal and State authorities in necessary and has not been evident so far, except in certain pockets. Thus the overall impact of health programmes is very limited.

Nutrition. Most nutrition programmes had been aimed at rural areas, until the advent of the Special Nutrition Programme. At its height in 1974-75, 29.4 million children (0-6) and 2·45 million women (pregnant women and lactating mothers) received supplementary food. In urban areas, this took the form of bread and milk, and was to a considerable extent shared by the entire family. An evaluation of this programme has been carried out but not published.

Balwadis. Under the auspices of the Central Social Welfare Board, there are over 6,000 *balwadis* in the country and, taking into account those run by all other agencies, the total may be about 15,000. Though this programme was always intended for the benefit of the rural areas, quite a few of the *balwadis* are located in urban areas, though here again no exact estimate is available. These run half-day nursery school type programmes for children aged 3-5 Since 1972 a nutritional component has also been added, and a supplementary feed is given through the *balwadi.* An evaluation has recently been completed.[13]

Creches. In the last decade, there has been a significant development in the number of creches and day-care centres. These fall into three categories: a) commercial creches which cater to the needs of the urban middle-class working women; b) factory and industrial creches, which have not been popular with mothers for various reasons such as the distance from place of residence, poor facilities provided and lack of confidence of the mothers in the service;[14] c) creches for poor working women in the unorganised sector run by

13. National Institute of Public Cooperation and Child Development (see n. 9 above)

14. Asha Rane, 'A New Look at Factory Creeches,' *Ekalavya*, Annual of Mobile Creeches, New Delhi, 1979.

voluntary agencies. Since 1975, Government funding is available for such ventures, and according to Departmental statistics for 1975-76, 741 creches are being run serving 18.5 thousand children, but with one or two well-documented exceptions, not much is known about the working of these creches or the quality of the services rendered.[15]

Preprimary education. There has been a steady growth in preprimary education in certain urban areas, provided by local authorities, remarkable in view of the low priority acccorded to this area of activity. Delhi took the lead in the 1960s and 1970s with a rapid expansion of preprimary classes in slum areas, now totalling over 500 classes with an enrolment of 15,000 children. Other cities which have taken up this programme are Baroda, Ahmedabad, Hyderabad and Bangalore. A total of less than half a lakh of children aged 3-5 may be served by these classes, which are essentially feeders into the municipal system of primary education, and the element of preparation for school is stressed. Existing research indicates that even in the limited areas of social achievement, the effects on children are closely related to the quality of preschool education provided. Unless the quality is good, no effect on school achievement has been found.[16]

Primary education. This has been the largest single area of expansion, and almost all urban areas in the country can boast of having made provision for universal primary education. However, non-enrolment is still a problem in every major city, so also wastage and drop-outs before the completion of elementary education. The high extent of child labour in urban areas is the other face of this coin. In the city of Delhi alone, with a tentative school-age population of 8.5 lakhs, estimates of the number of children out of school range from 35,000 (official) to 1.00,000 (unofficial). The problems of 'first-generation learners' are complex. On the one hand, the home cannot provide help or guidance in formal education and often lacks educational aspiration as well; on the other hand, children's earlier experiences have made them unprepared for the formal disciplines of the school.

While today, buildings, facilities, staffing ratios and equipment are adequate in most urban areas, the quality of education imparted is still unsatisfactory, or the content not relevant enough to hold children and the methodology inappropriate. Almost every municipal authority

15. *Ekalavya*, 1978.

16. M.A. Khalakdina, 'Deprivation and Intervention,' paper presented at a Seminar on 'Effects of Deprivation on Learning in Early Years,' New Delhi, May 1978.

faces grave problems in education and hasattempted to thrash out the 'special' problems of children in slum areas. The consciousness of the need for a qualitatively different programme is growing, but few have taken the bold steps necessary, though some municipal authorities, as in Bombay, have sponsored imaginative programmeson a small scale.[17]

Adult education. The relationship of adult education, especially of parents, and of women and girls to the development of children has received very little attention. This could be an important exercise both in creating awareness of children's developmental needs and the means of satisfying them, and in promoting the development of the skills to do so effectively. Some efforts at improvement through demonstrations of nutrition, child care, family planning etc., have been part of the *balwadi* programme, FCW programmes and other multi-purpose programme from the beginning. These have generally been sporadic and desultory, and they have often been seen as part of women's programmes rather than as related to child development. The Integrated Child Development Services (ICDS) programme has an element of functional literacy for women, which is meant to fulfil this need. However, reports indicate that this is the least effective part of the programme. Till the advent of the National Adult Education Programme (NAEP), which it is still too early to comment upon, there were few examples of well-developed material and resources for such programmes.

Integrated Programmes. There have been several such programmes in the past, notably the Urban Community Development Programme of the 1960s, and the Integrated Preschool Projects taken up with UNICEF assistance in the early 1970s. These have been early indications of the awareness of the need for an integrated approach, but have usually floundered upon the difficulties of communication and coordination inherent in Government-sponsored programmes. The largest and most recent is the ICDS programme launched in 1975 and now operating in 100 projects in tribal and rural areas and urban slums. The components of this programme are health services, referral, immunisation, supplementary nutrition, nutrition education and preschool education.

Small-scale experiments. There have been several small-scale experimental programmes in areas like recreation, vocational training, self-employment, rehabilitation and non-formal education. An example

17. Farida Lambay, 'New Approaches in Primary Education in Urban Slums,' in *Child and the Community* (Indian Association for Preschool Education 1977); 'Centre for Educational Resources, 'An Action-Research Project on Early Primary Education in Delhi: 19'79, (New Delhi; ICSSR), mimeo.

of an intensive integrated small scale programme is Mobile Creches, *a chain of centres for children of migrant construction workers*. Originating as a creche it quickly broadened out in scope and attempts to provide integration in two ways; horizontally, through services in health (preventive and curative), nutrition, recreation, non-formal education, preschool and adult education, family planning and community services etc., by one worker and under one roof; and vertically, by dealing with all age-groups from birth to adulthood. The extent of success of such agencies in the voluntary sector remains so far closely linked to their small size, flexibility and innovativeness in functioning, and stress on close personal interactions in programmes.[18]

Training. Since child education has never been recognised as a state responsibility (no mention of the young child has been made in the revised National Policy on Education placed before Parliament in April, 1979) there has also been no recognition, regulation or support to preschool teacher education. There are a number of private institutions catering to this need, with a very wide range of standards. The Bal Sevika Training Programme, started in 1961, still continues as an *ad hoc* structure, renewed from year to year, with no promise of permanence and no infrastructure. The programme naturally suffers in quality as a result. Though the scheme for grant-in-aid to creches was initiated in 1974, till today there is no recognised training for workers in the country. Neither is there recognised training available for the several other categories of workers with children—recreation, non-formal education, creative activities etc. All of these languish by official neglect, though outstanding work is being done in some areas by small voluntary agencies.

Most significant of all, is the training component of the ICDS. *To begin with it was introduced as a crash programme in 1975*, and a four-month course to be conducted by existing institutions worked out in order to launch the scheme on a pilot basis with all possible speed. Though four years have passed and the scheme has now been extended to 100 projects, involving a large number of workers, no attempt has been made yet to systematise the training and put it on a sound footing.

There has been extension of duration, scope or nature, no modification in the basic methodology, no attempt to introduce supervised field work as a part of training, and above all, no move to create an infrastructure for the purpose. The short training courses continue to be farmed out on an *ad hoc* basis to existing agencies who have to cope with them in addition to other responsibilities and who most often do

18. Mobile Creches, *Annual Report for 1977-78* (New Delhi: Mobile Creches); *Ekalavya*, Annual of Mobile Creches, 1976 (New Delhi: Mobile Creches).

not have the requisite practical experience to conduct the training suitably.

Overview of programmes

Relating the available programmes to the developmental needs and problems of children in urban slums, a vast chasm appears to exist between the two. The three outstanding characteristics of all the programmes described so far are:

1) Inadequacy—in sheer quantitative terms.

2) Inappropriateness—whether this is seen in terms of the *imitation of foreign models, application of models suited to rural* areas, or even sheer inadequacy of response in devising programmes based on needs, the same conclusion emerges.

3) *Fragmentation*—the single service in response to a single need, theoretically isolated from out of the interwoven web of needs—has led to the provision of a large number of diversified services, each operated by a different agency with little or no coordination, and each by definition incapable of even effectively fulfilling its own ostensible purpose unless suitably backed up by other services.

What are the implications of these findings? What criteria can we evolve for appropriate programmes for children?

Theoretical and policy implications

Academic interest in this area has been very limited and few studies, especially of an evaluative type, have been made. However, studies made elsewhere have had some impact. In the sixties, with the coming of Project Headstart and the subsequent War on Poverty Programmes, considerable interest was aroused and eagerness for similar intervention programmes grew. The enthusiasm for preschool education, for instance, permeated as far as the Municipal Corporation of Delhi which introduced a large-scale programme in 1969. However, the opponents of preschool education were quick to quote the various researches which followed in subsequent years showing the poor overall impact of Project Headstart. The early programmes in the USA were based on a middle-class approach, and stressed the various limitations of the so-called 'deprived' child of urban poverty, but shortly afterwards the famous 'deficit-versus-difference' controversy arose which is still inspiring debate.

At present, inter-disciplinary researches and the pervasive influence of anthropological and sociological approaches tend to favour the 'difference' theory; however, in India, the few studies emanating

from the National Council of Educational Research and Training (NCERT) and one or two universities stick firmly to the 'deficit' approach and support the middle-class norm as the ideal against which all other groups should be measured.[19]

Thus school achievement and I.Q. frequency counts of vocabbulary etc., are accepted as valid measures and are not seen to be circular arguments in nature. In the area of language development, there are no published micro-studies on the process of language development in various environmental settings. Again, in cognitive development, the extent of stimulation has received more emphasis than the nature of personal interactions.

A valid model of compensatory education, even if based on the 'deficit' theory, would need to study the following factors:

a) stimulation-response, and the role of over-stimulation in the environment of urban slums;

b) information processing or cognitive and learning strategies in the child, and the extent to which they varied with the nature of child-rearing and adult interaction, especially in fostering in the child

i) a sense of order and rationality in the universe, an essential component of the scientific attitude; and

ii) a sense of power and control over the physical and social environment, an essential component in promoting self-confidence, competence and a positive attitude to life.

How far do these exist under the conditions of urban slum living? How far can they be brought about by intervention programmes? Drawing on both Indian and other researches,[20] one may indicate the importance of the following:

a) *Continuity and reinforcement* in programmes for effectiveness. Short-term intervention is easily wiped out and leaves little trace.[21]

19. R.N. Rath, 'Teaching and Learning Problems of Disadvantaged Children,' Presidential Address, 12th Annual Conference of the Indian Academy of Applied Psychology, Bhubaneswar, December 1974; A.K. Singh, 'Social Disadvantage, Intelligence and Educational Achievement,' paper presented at the 14th Annual Conference of the Indian Academy of Applied Psychology, December 1976; R. Muralidharan and U. Banerjee, 'Language Development of K.G. Children in relation to their Parental Occupations,' *Indian Educational Review*, 1973.

20. UNESCO, Review of Research and Pedagogical Considerations,, in *New Approaches to Education of Children of Preschool Age* (Bangkok, September, 1978).

21. J. Bruner, *Studies in Cognitive Growth* (New York: Wiley, 1966); Corinne Hutt, Lecture at 15th Annual Conference of the Indian Association for Preschool Education, Kurukshetra, September 1978, unpublished; R. Schaefer, *Mothering*; The Developing Child Series (London: Open Books, 1977).

b) *a multiple or integrated approach.* Fragmented programmes are probably not only ineffective but also wasteful in terms of cost-benefit.[22] Numerous examples could be given, but two will suffice. A nutrition programme or a curative health programme, is likely to be ineffective unless combined with each other and supported by de-worming, pure drinking water, immunisation, prevention of communicable diseases, development of sound health habits, family planning etc. Similarly, preschool education is likely to be ineffective unless it is carefully organised to provide experiences supportive of the various cognitive and developmental growth points, for several hours a day and is extended over a period of several years, with continuous reinforcement. In other words, a full-day programme which is provided over several years, including the conventional years of primary education, is necessary to achieve the 'take-off'. Anything else is mere tinkering.

c) *relevance of content,* firmly basing the programme on needs.

d) *quality* which is of vital importance in any compensatory programme. Any sort of mere doling out of services in a routine manner is unlikely to be make a dent. In this context, the routine, impersonal and mechanical nature of most of the Governmental programmes (whether it is doling out food in supplementary nutrition centres, or formal routine teaching in large classes as found in State primary schools), may be of little help.

Summing up, one may list the four major criteria of intervention programmes aimed at the children of the urban poor as:

a) relevance of content, both to the Indian stiuation broadly and to the particular situation of urban slums.

b) quality of the highest order, to counter the pressures and problems on the child in such a situation.

c) a strategy of multiple or integrated services touching the life of the child at various points and involving the adults closest to him.

d) continuity and reinforcement over a period of years to enable some impact to be made.

One may once more point out the success of small scale agencies in the voluntary sector, like Mobile Creches, in meeting these criteria. This cannot be dismissed by the use of words like 'dedication' and 'commitment'; it is magic, but a valid and replicable model created by a steadfast application of sound principles of education,

22. UNESCO (see n. 20 above); H. Mckay *et. al., Stimulation of Intellectual and Social Competence in Colombian Preschool Age Children Affected by the Multiple Deprivations of Depressed Urban Environments* (Colombia: Human Ecology Research Station, 1973).

management organisation allied to hard work, clear perception of goals and an appreciation of the need for human resource development.[23]

This points up the importance of personnel, their recruitment training, motivation and continuous development in response to the needs of the situation, A glance at the programmes of agencies which have had some success in the field would show the vital role played by personnel and their training, using the same criteria of relevance, quality, continuity and integration.[24] The official attitude to personnel, which matches, in its lack of concern, the official attitude to the child, is short-sighted in this respect.

Conclusion

Studies of partial programmes now in existence have shown that the prerequisites for success are high quality and an integrated and comprehensive approach on a long-term and continuing basis. Half-measures will not do and are wasteful in cost-benefit terms. Examples exist to show that such programmes are possible and can meet the needs effectively. To replicate these models on a larger scale, we have the expertise, the resources, the models. For if in urban areas we have large concentrations of poverty and squalor with all their concommitants, we also have clusters of talent, human and material resources and adequate funds, with can be harnessed to the cause. A city like Delhi has illustrated that funds are not wanting for fountains, parks and city beautification. Cannot the same resources be used for worthwhile programmes for children? What is needed is a re-ordering of goals and priorities.

If programmes for children are seen as developmental inputs for the future rather than as welfare and relief measures to stave off immediate disaster, then in turn investment in training will be viewed as an essential human resource development measure. Only such a change of perspective can stimulate work of the kind and amount that needed. If there has been a low political commitment to children so far, it is partly a reflection of low public awareness and concern for children. The urban problem for all its size, is still of a manageable order where voluntary agencies can take the lead in developing effective programmes and prodding the political leadership into supportive action. For the children of the urban poor, there are special problems and needs but there are also special oportunities.

23. D. Singh, 'Mobile Creches,' paper presented at a Seminar on Preschool Teacher Training (New Delhi: Indian Council for Child Welfare, March 1978).

24. Suman Pathak, 'Teacher Training in Mobile Creches', *Ekalavya*, Annual of Mobile Creeches, New Delhi, 1975.

Basic Health and Educational Needs of Preschool Rural Children: An Integrated Approach

H. W. Butt

This paper will discuss selected programmes organised by the Indo-Dutch Project for Child Welfare which were introduced in the Chevalla Block, Andhra Pradesh. The rural programmes in this Block were initiated in 1970 in four sub-centers each covering a population of about 10,000. The Block consists of 114 villages with a population of 1,17 438. At present the project covers 37 villages with 7,769 families in two zones out of six with a population of 39,672. The distinctive approach of the Project has been the emphasis on local initiative and the use of local structures and existing specialised institutions so as to reduce dependence on outside resources and agencies. Keeping this in mind, integrated programmes for health, education and nutrition have been implemented only where there is sharing of costs and responsibility, however nominal. This has done away with a charity-oriented approach and the emphasis has been more on a education and motivation with the aim of bringing about a change in attitudes and patterns of behaviour. To ensure continuity and replicability an all-out effort has been made to introduce programmes that are cheap and within the resources of rural families. Thus the basic policy and programmes of the Project aim at the overall development of the child in the age group of 0-16 with an integrated approach to health, education and nutrition.

This paper will focus on the basic needs of preschool rural children with respect to health, nutrition and education; on the basis of concrete experience, it will also discuss the training required by village health workers to function effectively as instruments of non-formal education in the rural situation. Another important aspect of this paper will deal with the participation of the people not only in the implementation of the child welfare programmes but also in the sharing of financial responsibility.

Dr. H. W. Butt is Director of the Indo-Dutch Project for Child Welfare, Hyderabad. An earlier draft of this paper was presented at the XII Annual Meeting of the Nutrition Society of India in March, 1979.

Approach to basic health needs

Since the inception of the Project in 1970 one of the major inputs has been special attention to the needs of the child and mother to overcome the dangers of childhood and to introduce minimal preventive health measures; knowledge of family planning, better nutrition, immunisation and distribution of vitamin A to prevent blindness. These basic services were meant to help the small child grow to his or her full potential. The specific objectives of the health input have been to emphasise the preventive side of health and to educate rural families to adopt basic health practices.

In the first three years from 1970-72 the mobile health team comprising an additional professor of social pediatrics, assistant professors of pediatrics and obstetrics, a public health educator, a dietician, a public health nurse, postgraduates and interns visited four subcentres and the primary health centre in Chevella Block twice a week to provide services such as immunisation, ante-natal and post-natal care, family planning services, treatment of malnourished children, protein packets (Hyderabad Mix) and vitamin A therapy, to 6,922 households and 6,965 children in a population of 33,756 in 27 villages. In addition, this team trained local health personnel as well as traditional birth attendants in collaboration with the primary health centre medical officers. To provide better facilities at the Primary Health Centre, Shankerpally, two wings one for pediatrics and the other for obstetrics were added by the Project. The periodic recording of the weight and height of the children on weight cards has helped to assess the growth and development of each child. The children have been protected with total immunisation against small pox, T.B., tetanus, diphtheria, whooping cough and polio as well as a single dose of vitamin A administered once in six months.

During 1971 nearly 7,000 malnourished children were treated and supplied with Hyderabad Mix protein packets each weighing 70 grams containing wheat or jowar. bengal gram, groundnut or cow peas and jaggery in the proportion of 4:2:2:1. The protein content of these packets is 10 grams with 250 calories and 50 international units of vitamin A. These packets have been effective in reducing the oedema fluid and puffiness of the face with a definite increase of weight at the end of four weeks at an average of 0.66 kg. The Health Team claims that the regular fortnightly nutrition clinics have brought down such types of acute cases of protein calorie malnutrition from number one in the list of causes of mortality and morbidity among children to number three.

The composition of these protein packets has evolved basically

from the National Institute of Nutrition and been improved upon to make them out of locally available ingredients by the local *mahila mandals*. Educating mothers and children in health aspects with an accent on nutrition has been a special feature of these clinics. The protein packets have been readily accepted by the women who have also prepared them in their own homes. Till the end of 1975 a total of 48,702 protein packets were distributed. In the early years of the Project the continuous and regular bi-weekly visits of the Niloufer Health Team to the four sub-centres and the Primary Health Centre, Shankerpally became very popular and effective in improving the health of the mothers and children in 47 villages with a population of 45,761. The input of health although out of proportion when compared to the other aspects of the integrated approach, has made a definite impact on health, education, research, training and nutrition. The high percentage of immunisation of children from birth to 5 years and ante-natal care of mothers can be accepted as positive measures to improve the standard of health of a new generation.

A new strategy

After a period of three years, despite the popularity and effectiveness of the mobile health team it was clear that repeatability of such an input is not so easy. Before implementing a new strategy the achievements of this team approach were assessed which made the following points very clear.

(1) The introduction of a simple cheap protein supplement made out of local ingredients for 25 np each became very effective in reducing diseases of malnutrition in 7,000 children in a period of 3 years. The preparation of these packets was readily accepted by local women. They are now being prepared by the *mahila mandals* which help the members to earn a small profit of 7 to 8 paise per packet.

(2) Child care has become an indirect and most probably a more effective and genuine method of family planning. Due to periodic recording of weight and height on Morley's weight cards the mothers were assured that their existing children will survive. A second impact of the family planning programme was seen in 1973-1975 during which period 397 tubectomies were performed in the Project area and 150 loops were inserted, that is, 46 per cent of the tubectomies performed in the entire block were done in the Project area which is only one-third of the total block area.

(3) There has been a drop in the infant mortality rate in the Project area from 141 per thousand live births before 1970 to 67 per 1,000 during 1970-74, according to a sample study of 671 households by the National Institute of Rural Development.

A specific advantage of the mobile team project has been providing opportunities of practical training and research to postgraduates and interns of the Osmania Medical College as well as foreign students and senior pediatricians of the World Health Organisation and the UNICEF training courses. The Institute of Child Health, London has considered the practical work done in the Project area extremely useful to provide field experience in socio-preventive medicines, maternal and child care to the senior medical staff who enrolled themselves in the international course designed by the WHO/UNICEF. Several reasearch papers have been published on anthropometric studies of nutrition, infant feeding, child rearing, weaning practices and on morbidity patterns among pre-school children. Despite the specific achievements of the mobile health team it was still considered not repeatable as it would be difficult for the Government to use a high powered mobile health team consisting of 18 members to visit the sub-centres twice a week.

The ANM Experiment

In 1973 a new strategy was designed to strengthen the health worker at the lowest rung of the ladder and thus equip her to perform her functions more effectively and to emphasise the preventive side of health by regular home visits in the area allocated to her. For this new ANM experiment, the Government of Andhra Pradesh provided one extra ANM for each of the four sub-centres so that the population coverage per ANM was reduced from 10,000 to 5,000. The four sub-centres were reorganised so that both the ANMs could have suitable quarters attached to the new sub-centre building. A sixty day special training programme was organised for 20 ANMs out of whom 8 were selected and posted to the four selected sub-centres in the Project area. A simplified procedure of reports and records was introduced with a new kit for drugs. The size of the Niloufer Health Team was reduced to 6 members and its role changed to monitoring, on the spot guidance, and supervision. A forty day training programme was organised for the entire primary health staff in collaboration with the Regional Family Planning Training Centre. The regular daily clinics conducted by each ANM alternatively at each of the four sub-centres reduced the large number of mothers and children attending the fortnightly clinics of the mobile health team. An impact of this new experiment was the follow up of 4,575 tubectomy cases and the safe deliveries conducted by the ANMs and trained midwives.

When the ANM experiment was reviewed after a period of time it was observed that despite the fact of providing all the wherewithal to the ANMs to improve their proficiency the results were not

as expected. The data collected by her on the simplified forms was inaccurate and in spite of reducing the area of operation to half the home visits were neglected or half-heartedly done. However, there was a slight improvement in her attention to the average of 10-15 cases at the sub-centres. She prepared the ground for referrals for the Niloufer Health Team once a week which helped the doctors to give more attention to on-the-spot guidance and improving the confidence of both the ANMs and the community.

Multipurpose Health Worker's Scheme

In 1976 the ANM experiment merged into the wider programme of the multipurpose health worker's scheme introduced by the Government of India. The entire Block has now been reorganised into six zones with 24 sub-centres, each catering to a population of 5,000 staffed by a male and female multipurpose health worker. New kits and registers have been designed for the entire health staff of the block consisting of 48 multipurpose health workers and 12 health supervisors for the six zones. Training programmes were organised by the Project in collaboration with the Regional Family Planning Training Centre for the entire Primary Health Centre staff. The role of the Niloufer team again changed to monitoring and evaluating this new scheme, in collaboration with the Primary Health Centre medical officers. Instead of holding clinics in the sub-centre the Niloufer Health team split into 3 units and accompanied the multipurpose health workers during their home visits to give them on-the-spot guidance as well as to assess the multipurpose health workers in action. After a period of 8 months the monitoring team's assessment was that this new scheme did not show any marked improvement. The multipurpose health workers pointed out that one of the greatest difficulties faced by them was the inadequate quantity of drugs issued to them. They based their efficiency on the amount of drugs given to them which reflected on their approach to rural health services.

To bring about more effective participation in the health scheme, families were asked to contribute a nominal amount of 50 np only at the time of the first registration of the mother and child. This amount has been deposited in the respective local post offices of each sub-centre. It was encouraging to observe that families from the lower economic strata had no objection to pay this amount which has come up to Rs 7,060.80. This amount can be utilised for extra drugs or paying for any local workers etc. This has proved that rural families do not hesitate to pay nominal amounts for good services which prepares the ground for the maintenance of a village health agent (*gramaswasthika*) by the community.

Gramasvasthikas

Several alternatives have been tried out to improve the efficiency of rural health services and to provide the care and attention required by the child and mother but it has become evident that Government field workers left to themselves cannot function effectively unless they are assisted by village health agents who are representatives of the community. Such workers with training in simplified techniques and supported technically by the health infrastructure can provide simple essential services to meet the basic needs of the community. The results of the two experiments have proved beyond doubt that community participation is the key to organising and sustaining such essential services in the rural villages. With this point of view the *gramasvasthikas* experiment was started in 1977, after training local women who have had at least passed the 5th standard and who are acceptable to the community. These women have been assigned simple tasks of listing out pregnant women in the later stage of pregnancy, malnourished children under 5, unhealthy persons, births, deaths and the immunisation status.

It is too early to assess the working of these women but it can be said they definitely offer a way of beginning services which can be progressively acknowledged as their skills are improved by regular retraining and as resources grow. From experience it has been proved that it is not possible for a regular housewife to attend a training course for a period of more than 40 days. It has been an advantage to train these village workers closer to their own community in order to attract genuine and sincere workers. Although the number to be appointed as *gramasvasthikas* is limited to only one per village in the 34 villages of the two zones, 123 have been trained so far. The content of the training course, experience of living together and the opportunity of cooking different types of meals as part of the nutrition education programme is in itself a valuable experience for any village woman. These *gramasvasthikas* are given an honorarium of Rs 50 per month. They are provided with a kit containing a few simple drugs, a few registers and some visuals. They have to make regular home visits and list out cases that need attention, especially when the Multipurpose Health Workers visit the village and in cases of emergency to accompany them to the nearest sub-centre.

The honorarium to the *gramasvasthika* at present is being paid by the Project but subsequently it is hoped that the community will sustain her. The villages in the Project area have an average of 250 families with approximately a population of 1,300. If each family or at least 80 per cent i.e., 200 families contribute 50 np per month it would not be difficult to provide an amount of Rs 100 per

month which can take care of her honorarium of Rs 50, drugs worth Rs 23 and protein packets to treat at least 5-6 malnourished children and pregnant and lactating mothers per month. In this way the *gramasvasthika* experiment aims to strengthen and improve the rural health service by working in close collaboration with the Government health workers as well as encourage local initiative and community participation. After a period of time when the *gramasvasthika* would prove themselves effective it should not be difficult for the community to take over this aspect and have their own village health agent to advise them and assist them in minor ailments and guide them to the existing health facilities wherever available.

Child Health Calendar

In the effort to improve communications between the health workers and the pregnant and lactating mothers an unusual child health calendar has been designed as an instrument to educate rural illiterate mothers in basic measures of maternal and child care nutrition. This fifteen month calendar starts with the seventh month of pregnancy and concludes at the twelfth month of the child's life. The pictures for each month provide simple information to the last trimester of pregnancy and the first important twelve months of her child on nutrition, sanitation, hygiene, improved practices and precautions to be taken by her. The calendar serves as a dialogue between the mother and the health worker/*gramasvasthika*. It acts as a built-in reminder hanging on the wall in the home of the mother to communicate the basic measures to be taken by her for herself and her child as well as an effective tool for the *gramasvasthika* in her health, and nutrition education programme.

Creches

Three creches were started in the Project area for the age group of 6 months to 2½ years to provide an effective learning situation to mothers by demonstrating simple methods of child care to them. These creches have been a great help to mothers especially those engaged in agricultural labour and who have to cover long distances every day. In a survey the working mothers from the lower socio-economic level expressed their desire to leave their children in the creche rather than leave them at home at the mercy of an old member of the family or take them to the fields with them. These creches have proved to be effective tools to educate the mothers in the preparation of supplementary nutrition diets made from cheap locally available ingredients. They also helped to improve the health of the under fives by bringing down their mortality and morbidity rates. The efforts to encourage sharing of costs and responsibilities between the Zilla

Parishad. *panchayat samithy* and the Project have shown some results which need further improvement. In some cases the construction of creche buildings has been shared by the Government and the Project but the sharing of costs has yet to be worked out on a continuing and long term basis. The longitudinal research study of one of the rural creches made under the guidance of the Principal, College of Home Science has shown that the knowledge of nutritional values and change in dietary habits have been observed in the mothers. The anthropometric measures reveal that the height, weight and midarm circumference were significantly greater than the control group which can be attributed to the diet given and the health education imparted to the mothers. Health care increases the awareness of mothers regarding the importance of hygiene and child rearing practices. The mental development, however, did not show very encouraging result as compared to the control group.

From the experience gained from creches in the past years it has become more than evident that they can be an effective tool in bringing about changes in the attitudes, weaning foods and child rearing practices of rural mothers. They have undoubtdly proved their utility and need in spite of the difficulties and problems faced in the early stages. Much depends upon the type of local creches available to mothers and also on the type of training and on-the-spot guidance given to them. Once the mothers have become confident that their children are well taken care of at the creche they have shown willingness to accept changes in the diet, standards of cleanliness, health and sanitation. The Project has been experimenting with keeping the cost of these activities as low as possible to facilitate a take-over not merely by the Government but in a combined pattern where the share of the parents however small should be insisted upon along with the share of the community the *panchayat samithy* and the concerned department. Here again it is not just the matter of providing funds; what is more important is making available at the village level trained women on a continuous basis who can be directly linked up with the rural health staff for health check-ups, on-the-spot guidance and supervision in standards of cleanliness, sanitation and methods of preparing simple and cheap, nutritious diets.

The cost of running a creche with a strength of 30 children is Rs 6,440, as shown below.

Nutrition @ 50 paise per day per child x 30 children x 12 month @ 25 days a month	4,500
Salaries @ Rs 60 p. m. for two mother teachers	1,440
Miscellaneous—medicines, stationery, soap etc.	500
	6,440

The major input of this expenditure is the cost of nutrition which forms 70 per cent of the total cost; this can be seen in the following breakup which provides information to work out ways and means for community involvement in any shape that is feasible, e.g., five or more big farmers in the community could contribute one quintal each for the entire food requirements of the creche for the whole year and/or 5 persons could supply half a quintal of pulses for the total requirements of the year.

Details of cost of creche nutrition (local approximate rates in Rs)

Grain—@ 40 kg p. m. x 12 months 4.8 quintals @ Rs 150 per quintal	700
Pulses=@ 20 kg p. m. x 12 months 2·5 quintals @ Rs 400 per quintal	1,000
Milk=@ 1 cup per day per child x 12 months @ Rs 2 per litre	1,800
Miscellaneous—vegetables, jaggery oil, salt turmeric, fuel etc.	1,000
	4,500

Pre-school education

One of the significant features of the Project right from its inception has been the emphasis on pre-school education. It has been extremely difficult to bring about a change in the concept of the *balwadi* among the rural families that they are not mere feeding centres where children can be fetched by helpers to be given a full meal and taken back home to their parents. Drastic changes had to be brought about after several meetings and discussions with the parents and the *panchayat* that the *balwadis* in addition to improving the child and providing opportunities for personality development are also an effective tool to educate the mothers regarding the basic requirements of the child. The basic objectives of the *balwadis* have been to help the child to learn simple habits of cleanliness, hygiene and discipline; to promote standards of health; to make them more acceptable mentally for the primary school; and to create community awareness of the needs of the preschool child Parents' participation was defined to provide alternatives such as (i) 50 np per child per month or (ii) 6 kilos of any food grains per year or (iii) cooking of the mid-day meal by the mothers for 4 days in the month The other important changes have been action-oriented programmes for more creative thinking and recreation; the introduction of two mother-teachers in place of the *balsevika;* the change in the quantity and type of mid-day meal according to the recipes prescribed by the National Institute of Nutrition, the cumulative card system for each child; mother committees for supervision; short refresher training courses for *balsevikas*, mother-teachers and the monthly meetings for review and evaluation.

Although there has been considerable improvement in the attitude of the parents since 1970 there still is a long way to go to get the *balwadi* concept fully understood by the parents and the community. The only unfavourable attitude by the parents as reported in the evaluation made of the National Institute of Rural Development was due to the changed nutrition programme from a full mid-day meal to a nutritional supplement. By reviewing the *balwadi* programme each month by rotation in each one of the 14 centres with the entire rural staff and the concerned parents it has been possible to bring about a few changes after a long struggle since 1973. The most significant change has been the mother-teacher experiment introduced in 1974. The high school qualified *balsevika* with 11 months of training in health, nutrition and child development has been replaced by two V class pass mother-teachers who have undergone a coordinated course in health, education and nutrition for a period of 40 days. This change became necessary because of the difficulty in getting *balsevikas* for interior villages of the Project and the lack of the sense of belonging on their part. The specific advantage of this change has been the assurance of continuity of the mother-teachers who invariably belong to the village. It is essential for the mother-teachers to cook the mid-day meals themselves by rotation instead of leaving this important task in the hands of a helper. The content of the training course was condensed to 40 days to equip the mother-teachers with basic principles of nutrition, cooking, health, hygiene, first aid, prevention of contagious diseases, enlisting community involvement, language development, preparation and use of visual aids from locally available material and games and recreation.

In the several attempts to make *balwadis* more popular and acceptable the recommendations of the Ministry of Education, Government of India have been tried out by experimenting with three primary school based centres where additional classrooms have been attached to the existing primary schools in three villages. To provide a nucleus of trained mother-teachers the Marijnen Shishu Niketan a model *balwadi*-cum-field training unit at Chevella which caters to 100 children with four mother-teachers has facilities for running the coordinated training courses every three to four months. These training courses have proved extremely useful and popular as 181 women have been trained so far in the areas that are basic to mother and child. Although it has not been possible to utilise the services of all the trained women it has been very clearly indicated at the very outset of each training programme that the basic objective of the training is to provide opportunities for women to become more aware of the problems connected with health and nutrition which in itself will equip them to be better housewives and mothers. At present there are 10 *bal-*

wadis, 3 primary school based centres and one model *balwadi*-cum-training centre with a total of 673 children i.e., 291 boys and 382 girls in 14 villages. The nominal contribution from the parents either in cash, kind or service has become more prompt and regular since the the past two years. But out of the three alternatives mentioned the easiest i.e., the cooking of mid-day meals for about an hour or so by the mothers for 3 or 4 days a month has been completely turned down. Contributions have been received in the shape of grain and 50 np per month per child. The total amount of contributions so far is Rs 10,597 which has been deposited in the local post offices/banks in the respective villages to be used when a decision has been taken about the future of the *balwadis*. Although the proportion of the contribution as related to the nutrition expenditure is very nominal, the trend of a steady increase in the contributions from 2.3 per cent in 1973 to 15.8 per cent in 1978 as seen in the table below is highly significant. These nominal contributions have, however, made the parents feel that they are partners in the working of the *balwadi* which gives them a right to raise questions and examine certain aspects of the programme. Below is a statement showing the extent of parents' contribution to expenditure on nutrition.

Item	1973	1974	1975	1976	1977	1978
Parents' contribution (Rs)						
In cash	92.00	910 00	1,451.00	2,090.00	2,904-00	3,150,00
In kind	—	90.00	210.00	1.082.00	1,010.00	348.00
	92 00	1.000.00	1,661.00	3,172.00	3,914.00	3,498.00
Average strength	764	648	537	593	642	675
Expenditure on nutrition	4,050 00	20,471.00	18,141 00	23,477.81	27,824 03	22,162.83
Percentage of contribution to nutrition expenditure	2.3	4.8	9.1	13.5	14.1	15.8

*Parents' contribution commenced from November 1973, hence Project's proportional expenditure for two months is recorded here.

The duties and functions of the mother-teachers include home visits and contacts with the parents as well as contacts with the primary school teachers to enroll and check children who have 'graduated' from the *balwadi* to the primary school. On an average it has become possible to admit 100 children per year to the primary schools which brings the total to 537 since 1974. The mid-day meals include green leafy vegetables, sprouted gram and other items that have been taught to the mother-teachers Milk is given to the children twice a week and eggs once a week. The supply of milk and eggs is again dependent upon the individual backyard poultry and dairy units for

which loans have been given to members of the *mahila mandal* or the mother-teachers to ensure a regular supply to the creches and *balwadis* as well as to provide a means to supplement their family income. With the experience gained in the past it is now becoming more evident that it would not be too difficult for each village to have its own *balwadi* with local mother-teachers. It cannot be concluded that *balsevikas* should not at all be utilised for pre-school education. On the other hand, if local *balsevikas* are available who could ensure continuity and have a sense of belonging they should be preferred to mother-teachers. The running of *balwadis* by the concerned department or any other agency tends to become a one way process without any sharing or involvement by the parents and or the community. For *balwadis* to be effective on a long term basis, steps are being taken to institutionalise the *mahila mandal* which seems to be the most appropriate body to take over this responsibility. For this it is necessary to improve the *mahila mandals* themselves and place them on a more sound footing. Unless there is a nucleus of 10-20 trained women in each village who can qualify as knowledgeable and responsible members of the *mahila mandal*, it is not possible for the *mahila mandal* to take up such responsibilities. Along with trained womanpower it would be necessary to provide the *mahila mandal* with the necessary funds. Amounts from parents' contribution, profit from economic projects, 10 per cent of the *panchayat* income, local cess and grants from the Zilla Parishad and the concerned departments can be pooled for this purpose. By reducing the cost to the bare minimum it is possible for each village to have an effective *balwadi*. The concept of mother-teachers fits into this context because local mothers do not have the problems of housing etc. The cost of running a *balwadi* with 40 children with details of salaries and the nutrition component as compared to the *balsevikas* and the mother-teachers scheme with or without CARE inputs calculated at 25 days a month and eleven months a year, can be seen in the chart below.

Items of *balwadi* expenditure	1 balsevika + 1 helper @ Rs 150 p.m. @ Rs 50 p.m.		2 mother teacher + 1 helper @ Rs 60 @ Rs 30 p.m.	
	per month (Rs)	per year (Rs)	per month (Rs)	per year (Rs)
NUTRITION				
a) With CARE material @ 19 paise per day per child	190.00	2,090.00	190.00	2,090.00
b) With local ingredients @ 35 paise per day per child	350.00	3,900.00	350.00	3,900.00
Salaries/Honorarium	200.00	2,400.00	150.00	1,800.00

Miscellaneous	45.40	500,00	45.40	500.00
Total with CARE material	435.40	4,990 00	385.40	4,390.00
Total with local ingredients	595.40	6,800.00	545.40	6,200.00

To run a *balwadi* for 40 children the expenditure on salaries/ honorarium and nutrition would be Rs 6,800 per year for the *balsevika* type and Rs 6,200 for the mother-teacher type. As 63 per cent of the total cost of running the *balwadi* forms the nutrition component, it should not be difficult to get some of the well-to-do members of the community to donate specific items for the whole year for which purpose the break-up of the nutrition component is given blow.

Food gains @ 80 grams per day per child	Approximate Cost (Rs)
jowar/wheat-8-8 quintals per annum @ Rs 150 per quintal	1,300.00
Milk @ 1 cup per week per child for 48 weeks per annum @ Rs 2 per litre	425.00
Eggs @ 1 egg per week per child @ 33 paise per egg for 48 weeks	625.00
Miscellaneous-covering vegetables, oil, fuel soap etc. for 11 months @ Rs 140	1,550.00
	3,900.00

From the above table it is clear that *balwadis* would require about 9 quintals of grain for the entire year. It may be possible for 9 members of the community to provide a quintal each for the *balwadi* which will bring down the expenditure of the *balwadi*. It takes only per 35 np per day child for the nutrition component and 5 paise per day per child for the entire cost. The break-up of the recurring cost of running a *balwadi* with 40 children is as follows (in Rs).

Nutrition @ 35 paise per day per child x 40 children x 11 months @ 25 day per month	3,900.00
Salaries @ Rs 60 p. m. for two mother-teachers and @ Rs 30 p. m. for helper	1,800.00
Miscellaneous expenses including stationery, transport, medicines etc.	500.00
	6,200.00

It is not always possible to expect the community or *panchyat* to run a *balwadi* on its own finances. A suggestion for sharing of costs is given below to show various possibilities of sharing rather than running a *balwadi* only from funds granted by the Government or any one agency.

I- Nutrition @ 35 paise per day per child for 40 children x 11 months—Rs 3,900 by the following agencies·	
Parents' annual contribution @ 50 paise per month	200.00
Village Community for milk cost, fuel etc.	500.00
Annual profits of *mahila mandals* @ Rs 25 per month	300.00
Big Land owners and/or voluntary agencies—8.8 quintals grains + vegetables, oil etc.	1,800.00
Panchayat Samithy's share 10 per cent of income and cess	1,100.00
II. Department of Women and Child Welfare and/or voluntary agencies	2,300.00
	6,200.00

Conclusion

The integrated approach to the basic needs of preschool rural children, which we have described above, has as its basic objective improvement in the quality of life through activities centred on the mother and child in the inter-related areas of health, nutrition and education. The change of attitude among the rural familes who have participated in these programmes is encouraging and it seems likely that the new initiatives can become self-sustaining and have long-term effects because they have stimulated more intensive community involvement. Though it is not possible to draw any firm conclusions either about the methodology or the effectiveness of the programmes we have described above, it would seem that this experience of locally managed health, education and nutrition programmes for child welfare has a wider significance because it incorporates aspects related to grass-root mobilisation, the use of locally available personnel and the sharing of financial responsibility, that are capable of replication.

Some Aspects of Infant and Child Mortality in Rural North India

George B. Simmons
Celeste Smucker
B. D. Misra

It is known that mortality is high in North India especially in the rural areas, and that infant and child mortality is particularly high. But the preoccupation of demographers with fertility has led to a relative neglect of mortality, and there are few analytic studies of mortality in North India.[1]

This paper presents an overview of a series of research investigations concerning the structure and correlates of infant mortality in rural Kanpur and Etawah districts. During the project period, the mortality data collected as a part of this research has been studied from a number of perspectives. In this overview paper that work will be reported in roughly chronological order to give some flavour to the process as well as to outline the findings.

I. The Data

The client part of the study was conducted in 120 villages, chosen randomly with probability proportional to size in two districts—Etawah and Kanpur. In each village a random sample of twenty-five couples was chosen with wife age 15-45. The total number of wife

---

Dr. George B. Simmons is Director, Programme on Population Planning, School of Public Health, University of Michigan. Celeste Smucker is at the University of Texas, Stan Bernstein at the University of Michigan and B. D. Misra at the Indian Institute of Technology, Bombay. We are grateful to Michael Koenig and to an anonymous reviewer of *Social Action* for helpful suggestions on a draft of this paper and to Ruth Simmons for assistance in both data collection and analysis. The data used in this paper were collected with support from the Government of India and US A.I.D. Analysis has been supported by a grant from the National Institute of Health to the University of Michigan and by a Ford Foundation travel grant to the senior author.

1. See Ashok Mitra, *India's Population: Aspects of Quality and Control* (New Delhi: Abhinav Publications, 1979) for a detailed review of what is known about mortality in India.

interviews was 2,192. This includes interviews with 1,851 couples where information was obtained and verified from both the husbands and the wives, and a sample of 341 where information was collected only from the wife. Within the limitations of the sampling frame, the sample should be reasonably representative of the resident rural population of Kanpur and Etawah districts.

Our information on both fertility and mortality within the client sample is derived from the analysis of the pregnancy histories collected from each female respondent. Trained female interviewers asked each wife a series of questions designed to provide a complete list by year and month of all pregnancies experienced by the respondent. When the interval between two events seemed larger, detailed probes were conducted to ascertain use of family planning or any missing event—live births that may have died, still births, abortions and miscarriages. In case of any death detailed information on the cause and age at death was also obtained. A set of internal checks were built into the pregnancy history procedure to minimise underreporting. Moreover, in every case when the husband was also interviewed, he too was asked to provide a list of his living children by age. This list was then compared with the wife's pregnancy history while the interview team was still in the village and corrections were made when the two did not correspond. Further checks were made during the process of coding.

Despite all these checks there are many remaining problems. Same pregnancies may have been missed entirely. Some respondents would not or could not report their full histories. An examination of the data suggests an underreporting of miscarriages, abortions and still births. In our data fetal loss forms a lower percentage of all pregnancies than is reported in data collected prospectively where fertility is basically similar to that in Kanpur and Etawah. There are also indications of some underreporting of live births that have since died. Because the sex ratio in the uncorrected data from our our survey is higher than is usually reported for Northern India, we infer that some female births have not been recorded It is our strong impression that most of the omitted live births represent subsequent child deaths that were not recorded. Since infant mortality is high in this region and the bulk of the deaths take place immediately after birth, it is easy to imagine that women might not remember some births, particularly those of less highly valued female infants. High parity and a period of time up to nearly thirty years between the event and our interview also cause lapses of memory. Moreover, women are especially reluctant to talk about children who have died A final problem with the pregnancy history data relates to digit pre-

ference exibited by women in reporting the age of children either at the time of the interview or at death.

The people who reside in the villages of the sample are generally poor, illiteracy is common especially among women and fertility is still very high. The crude birth rate for the sample population was above fifty per thousand during the period 1965-69. For all these reasons one expects the pattern of mortality within the sample to differ from that in urban areas or in rural areas with different socio-economic characteristics.

One very important aspect of the data set used for this paper is that it is population based. Most official reports of morbidity and related mortality in India (with the notable exception of the Sample Registration Scheme) are based on clinical records. Since there is every reason to believe that only a subsample of the population has access to or makes use of hospitals and clinics, these data have an inherent bias. This bias should be taken into account for purposes of health planning. For if health plans are based on the clinic records, they may neglect common diseases and causes of mortality that are less likely to be reported to hospital authorities. Of course, client based data sets have their inadequacies as well. A number of these inadequacies were mentioned in the previous paragraph, but it should be additionally noted that there are severe problems associated with self-diagnosis of diseases or even description of symptoms.

II. Descriptive analysis

The sample of pregnancy histories and related mortality information as described above has been analysed in several ways. To begin with, some basic tables were constructed and subjected to an analysis for internal consistency. This material has been reported in various forms elsewhere and will not be discussed in detail here.[2] Table 1 presents the basic table from this analysis. Several features of this table are of interest.

First, infant and child mortality rates are high, but have been falling over the past twenty years. Less than half of the births in the cohort born during or before 1954 were alive at the time of interview. Even at the somewhat reduced levels of mortality experienced more recently, a large proportion of all births will not reach maturity.

Second, the ratio of deaths in the first week and month to all deaths in the first year is considerably higher than often expected for

2. For a detailed discussion of this part of the research see, G. B. Simmons, C. Smucker, B. D. Misra and P. Majundar, 'Patterns and Causes of Infant Mortality in Rural Uttar Pradesh,' *Journal of Tropical Pediatrics* 24 (n.5, 1978), pp. 207-216.

Table 1: Age-Specific Mortality Rates by Birth Cohort for All Live Births of Sample Women*

Year of Birth	Age at Death								Cohort size	Suvival (rate $3q_0$)	Sex ratio
	Less than 1 wk	1wk to 1 mth	1mth to 1 yr	Infant Mortality Total	Infant Mortality Male	Infant Mortality Female	1-2 yrs	2-3 yrs			
1954 or before	.086	053	·123	.261	.282	.232	.147	.063	1255	.590	1.26
1955-1959	.105	.049	.093	.247	.262	.230	.136	.063	1784	.610	1.07
1960-1964	.090	.034	.091	:216	.209	.224	.104	.041	2707	.674	1.13
1965-1969	.071	.029	.070	.170	.163	.177	.065	—+	3265	.756	1.14

*Data are uncorrected for misreporting of month of death or sex ratio

+Data incomplete

developing countries.[3] This pattern contrasts sharply with the often suggested expectation that a relatively low proportion of all deaths in in the first year of life would take place during the first month. Later sections of this paper will discuss the implications and the reasons for this finding in more detail.

Third, the mortality experience of male live births has been greater than that of females until the very recent past. Higher mortality rates for males are a commonly observed pattern. The recent phenomenon of higher female mortality is less common and may reflect nutritional patterns and cultural practices peculiar to India. This topic will be discussed in greater detail in the last section of the paper.

A careful examination of the age-specific sex differentials highlight the possible underreporting of female deaths and births. To the extent that such underreporting exists the female death rate should be higher and overall death rate may be increased as well.

Inspection of these data suggests that there are a nnmber of problems of reporting. Corrections have been made to estimate the 'true' rate of infant mortality for the population. These estimates suggest an infant mortality rate of 205 per thousand live births with a male rate of 170 per thousand and a female rate of 223 per thousand.[4]

Mortality differentials

The next step in the analysis is to examine the way mortality varies among the major socio-economic groups in the population (Table 2). In general, these findings correspond with expectations. Mortality is inversely related to socio-economic class. The most apparent anomaly in the table is the relationship between infant mortality and landholding which is curvilinear rather than monotonically declining with landholding size. This relationship was unexpected and presented us a great deal of difficulty in the analysis. Our first instinct was to assume that the relationship was based on a computing error. Careful checking eliminated that possibility. A number of other checks were made on obvious possible explanations, but the relationship held up under most tests. The one exception was that the mortality in the upper landholding group seemed concentrated in the neonatal period. This result suggested that it could be appropriate to examine mortality by reported cause of death.

3. John Stoeckel and A. K. M. Alauddin Chowdhury, 'Neonatal and Post-Neonatal Mortality in a Rural Area of Bangladesh,' *Population Studies* 26 (n.1, March 1972), p. 115.

4. For details, see G. B. Simmons, *et al., op. cit.*

This subsidiary analysis necessitated recoding the mortality information for cause of death.

Table 2: Fertility and Mortality Rates for Sample and Sub-groups, 1967-71

Sample Groups and Sub-Groups	Total number of Women Years of Exposure	Total number of Births in Women Years of Exposure	Vital Rate Categories		
			Total Fertility Rate	Infant Mortality Rate[1]	Net Rate of Reproduction[1]
Total Sample	10609	3202	7.73	178	2.20
Caste of Wife					
High Hindu	3002	937	7.74	170	2.18
Middle Hindu	2853	874	7 86	174	2 07
Low Hindu	4343	1287	7.65	182	2.20
Muslim	331	104	7.64	221	2 15
Education of husband					
No education	4655	1367	7.73	181	2.18
Some primary Jr. H S -	2809	857	7.74	189	2 07
Some H.S - University	1456	445	7.42	139	2.50
Land owned (Pukka Bighas)					
No land	1670	503	7 37	*195*	1.82
0.8—4 9	2325	746	7.85	*215*	2.17
5.0—9 9	2172	634	7.54	*158*	2.26
10.0—19.9	1861	571	7 74	*185*	2.30
20.0+	769	240	8 10	*225*	2.19

1. It is assumed that 62.5 per cent of deaths reported in Month 12 take place in Year 1. Since there is a strong digit preference for reporting deaths at exactly age 12 months or one year, the estimated infant deaths will vary somewhat according to how age heaping is handled.

At this phase in the analysis we were left with several major impressions. First, the difference between the neonatal period and the remainder of the first year seemed very important. Second, the cause of death seemed likely to be an important factor in any attempt to 'explain' the observed patterns Third, the sex differentials were substantial and required more detailed examination.

Cause of death

In the process of collecting the pregnancy histories for each of the female respondents, we asked for the cause of death for all the live births that had died. It should be stressed that the causes reported were not verified by medical examination or independent report.

Thus, considerable misclassification and vagueness associated with the reports is likely. Nonetheless, we feel that the overall pattern that emerges is very informative. Moreover, it is reasonably consistent with such limited data as exist of a comparable nature.[5]

In Table 3, mortality rates are presented by cause of death for the 1965-69 birth cohort. Rates are presented separately for the first month of life, the rest of the first year, and for the second and third years of life, both for males and females. These rates are calculated on the basis of 100,000 live births For the second and third year age data, these rates should be distinguished from the age-specific mortality rates. The disease categories represent our attempt to aggregate the reported causes of death into meaningful working groups.[6] Reported causes that do not fall logically into one of the first five groups are grouped together as 'other'. Included in that category are such important causes as birth defects and accidents. The proportion of the deaths for which no cause of death was reported is given in the column headed 'Not Ascertained.'

During the neonatal period the most frequently mentioned cause of death is tetanus which for that age group accounts for a higher proportion of deaths (66 3 per cent of all neonatal deaths) than all other reported causes combined. The incidence of mortality due to this cause is about the same among the male and female children. The neonatal mortality data indicate, however, that for some of the other less important causes of mortality, sex differentials exist. For example, of those who were reported to have died from respiratory diseases during the first month a disproportionate number were males. The existence of sex differentials persisted even in the post-neonatal period.

Mortality due to tetanus declines dramatically in the post-neonatal period. Mortality in this period is dominated by general infectious or inflammatory diseases, such as malaria, smallpox, diptheria or 'fever.' While in the neonatal period deaths due to such causes are about 6 per cent of all deaths, they increase to 33.5 per cent in the post-neonatal ages.

5. For a discussion of tetanus and complete references to the literature see, C. Smucker, G. Simmons, S. Bernstein and B D. Misra, 'Neonatal Mortality in South Asia: The Special Role of Tetanus,' *Population Studies* (forthcoming).

6. The cause of death diagnoses reported by our respondents differ in their accuracy. In some cases it is difficult to identify a particular disease For example, what we have called 'rickets' following the sample of our bilingual interviewers was called 'sukha rog' by our Hindi speaking respondents. They described the condition they called 'rickets' as one where the child had dry skin and was severely emaciated. 'Rickets' may describe a variety of nutritional disorders including marasmus and rickets.

Table 3: Mortality Rates per 100,000 Live Births By Cause of Death for the 1962-69 Birth Cohort as Reported by the Sample Population

Age at Death	Sex	Total Births	All Causes	Rates by Cause: Tetanus	Rickets	Gastrointestinal	Respiratory	General infectious or inflamatory	Other	Not ascertained
within 1 mth	All	3267	10040	5356	184	398	398	459	1289	1959
	M	1755	10484	5472	57	342	570	570	1368	2108
	F	1527	9430	5173	327	458	196	327	1179	1768
1 mth-1 yr.	All	3267	6734	520	949	612	888	1837	673	1255
	M	1755	5641	455	684	627	912	1197	513	1254
	F	1527	7924	589	1244	589	851	2554	851	1244
1-3 years	All	3267	7407	92	1683	612	918	2356	765	977
	M	1755	6097	114	1481	456	855	1880	570	741
	F	1527	8841	65	1899	786	982	2881	1048	1244

The toddler mortality of the second and third years is dominated by infectious diseases again, with 'rickets' as second most important cause of death. Tetanus is primarily important during the very early period of life while the general infectious diseases, rickets and respiratory diseases are important later. As mentioned earlier, the cause specific rates of mortality differ greatly by sex. Mortality due to rickets, infectious diseases and the residual 'other' category is much higher for females in the post-neonatal period than for males, while tetanus and the remaining causes of death do not seem strongly sex specific. This pattern may reflect cultural practices and patterns of nutrition which place lower priority on female than male children.

The relative importance of these various causes of death is further illustrated by an examination of the trends over time. Table 4 shows the percentage decline in mortality rates associated with these various diseases between the earliest and latest cohorts represented in the sample. The central finding is that the mortality rate due to tetanus has declined less than that of any other cause in the neonatal period. This may be in small measure due to underreporting of neo-

natal deaths in the earliest period, but the general pattern seems clear. For the two post-neontal age groups, there has generally been a much larger decline in the cause and age-specific mortality rates. The major exception is 'rickets' among the post-neonatal infant and child deaths which has remained relatively constant. Other cause specific death rates have declined led by dramatic declines in the mortality rates due to gastrointestinal and general infectious diseases.

III. Empirical models of input and child mortality

On the basis of the findings reported in the first part of this paper we have concluded that childhood mortality should not be studied as a unitary phenomenon but rather as a set of interrelated phenomena with different factors affecting the probability of death in various age groups and with the factors associated with different diseases having recognisably different causal antecedents. On this basis we have chosen in our further explanations to divide childhood mortality into deaths during the first month of life (neonatal mortality) and those during the remainder of the first year or during the second and third years of life (post-neonatal mortality). Because of the overriding importance of tetanus during the neonatal period we have further sub-divided the analysis into the study of factors relating to tetanus deaths and those relating to non-tetanus deaths. Similarly, because of the importance of sex differentials, we have examined the male and female experience separately for the post-neonatal period.

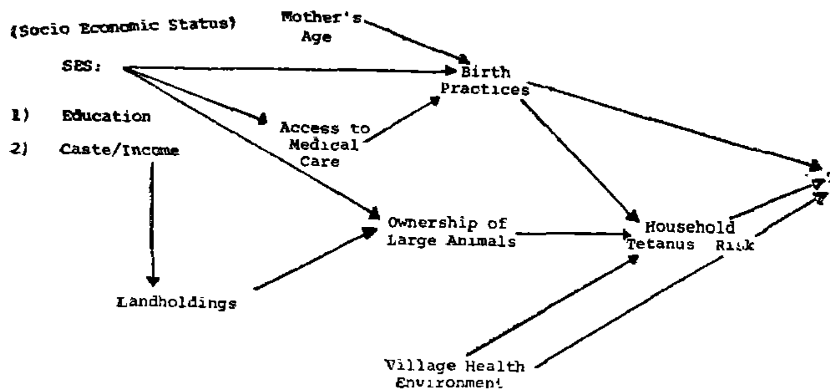
One of the major goals of this part of our research is to understand the causes of infant and child mortality in this region. At this stage, it may be appropriate to say a word about the way we interpret causality. We recognise that there is no single unique cause of death. While there may be a biological factor associated with any given death which a physician may give the label 'cause of death,' a multitude of circumstances are associated with the event and many of these factors may have played a 'causal' role in the sense that they precede the death and are necessary conditions for the death to take place. Within this kind of a structure there can be many 'causes' of death and the purpose of this section is to explore some of them.

As a framework for our empirical work we have developed two models to explain the probability of neonatal death. One model emphasises the special features of tetanus and the other a wide range of variables associated with non-tetanus deaths. This separate treatment of tetanus and non-tetanus is justified by the high proportion of tetanus deaths in this region and by the contrast between the underlying causal mechanisms in the two syndromes. Both models incorporate all variables felt to be theoretically significant. A third more tentative model has been developed for post-neonatal mortality.

Table 4: Percentage Decline in Age and Cause Specific Mortality Rates between Cohorts Born before 1955

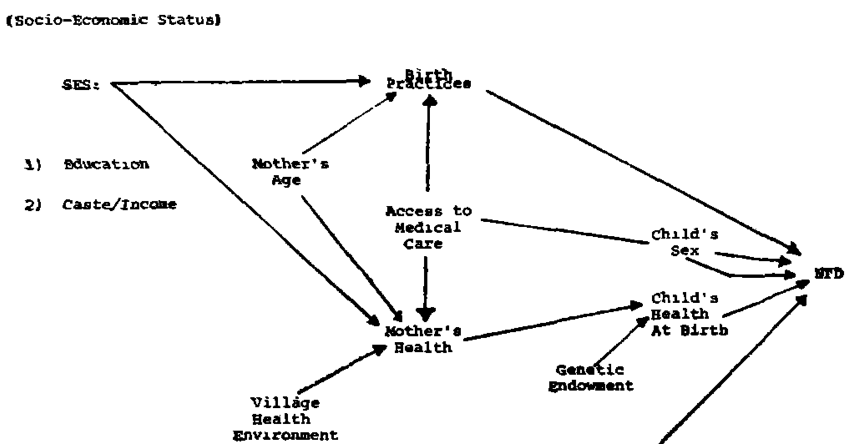
Age at Death	Cause of Death							
	All	Tetanus causes	Rickets	Gastro-intestinal	Respiratory	General Infectious or inflamatory	Miscellaneous	Not Ascertained
Within one month	27.6	12 7	42.3	44 5	50.1	55.7	37 9	29.8
One Month to one year	46.6	34.8	00.7	57.3	20.4	47.1	59.8	45.7
One year to three years	50 0	61.5	39.7	40.9	28.0	61.1	40.0	54.5

Figure 1: Schematic Model of Tetanus Mortality (TD)



For ease of presentation, the three models are presented in the form of causal diagrams in Figures 1, 2 and 3. While many of the independent variables are the same in all models, their roles and interpretations may differ considerably

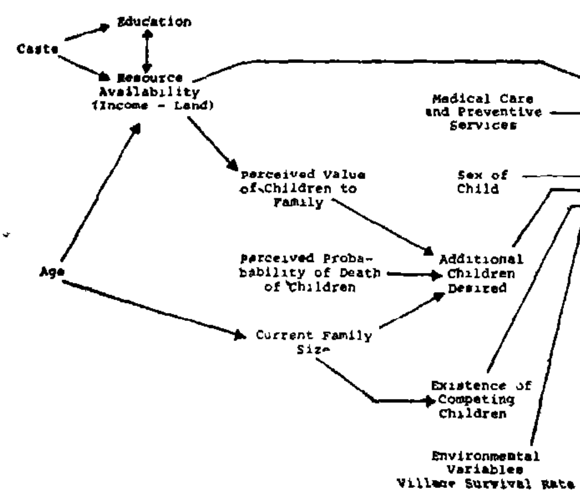
Figure 2: Schematic Model of Non-Tetanus Mortality (NTD)



In the tetanus model of Figure 1, the primary direct influences on the probability of mortality are the birth practices associated with a given delivery. and the probability that there will be tetanus spores in the immediate environment. Without the conjuction of tetanus spores and the use of birth practices that permit infection, the disease is unlikely. Each of these factors is in turn explained by other influences. Birth practices are a function of the family's socio-economic status, the age of the mother and the extent to which adequate medical care is both available and used. The presence of tetanus spores in

the environment is a function of the characteristics of the household and the larger community. For instance, a house which is plastered with cow dung is more likely to have spores than one which is not. Thus a chain of causation can be drawn linking the risk of tetanus with the particular characteristics of a family or village.

Figure 3· A Schematic Model of Post-Neonatal Mortality



The model of non-tetanus mortality is shown in Figure 2. In this model we focus on factors which are likely to be associated with biological causes of death. Thus, personal characteristics of the neonate and the mother are emphasised. The most important theoretical variables which we would like to use for this purpose are the birth weight of the child, its sex, and the mother's age and health status. These are, of course, in turn determined by other variables such as the socio-economic characteristics of the family and access to medical care.

The model of post-neonatal mortality is pictured in Figure 3. This model attempts to incorporate a recognition that curative medical attention related to infectious diseases, choices related to resource allocation (including nutrition) and the health environment of the village all play a larger role in this age period than they do during the first month of life. One unusual feature of this model is that we have incorporated a measure of family size attitudes as an element in the model.

Variables used in empirical research

The measurement of the variables specified in the theoretical models presents difficulties since for some no data have been collected

and for others, the measures are imperfect. For example, access to medical care should reflect objective and subjective availability of appropriate services. We have explored two possibilities: type of medical facility available and time needed to reach the nearest government dispensary. The former indicates the type of medical care facilities available (e.g. allopathic vs. ayurvedic, government vs. private etc.) and the latter indicates relative accessibility of care. We assume that facilities which require greater time to reach are subjectively less accessible and salient to the respondents.

The variable, birth practices, should reflect the extent to which aseptic techniques are used at delivery. Unfortunately, births were not observed and details concerning the circumstances of each delivery were not elicited. We do not know who attended the last birth in the family. In decreasing frequency, birth attendants were: untrained midwives, relatives, and trained personnel (doctors, government trained midwives). We assume that the latter individuals show greater concern for sanitary practices than the former two groups. However, our measure of birth practices relates only to the last birth in the household and we must assume that the same type of attendant assisted with prior births in the same household. Thus, the upper casual chain in the model posited in Figure 1 contains variables only approximately indexed.

Similarly, we lack direct measures of the incidence of tetanus spores in the environment at the time of birth. We choose, then, to rely on variables that indicate the likelihood of exposure. Assuming relative constancy of household conditions, the risk of tetanus exposure for a given birth is indicated by whether a prior born sibling is reported to have died of tetanus. We also investigate the relation of this indicator to its proximal causes including the ownership of large animals, the extent of landholding, and the general health of village children (measured as the survival rate to age three per 1,000 children).

Other independent variables pose fewer difficulties. Several alternative SES indicators are available including mother's and father's education and caste, and family income. Father's (rather than mother's) years of education was selected as the education indicator because of greater sample variation on this variable.

The income measure is a five level categorisation of family income per consumer unit[7] for 1972, the year the survey was conducted. A dynamic measure indicating conditions at the time of each birth might be preferable. However, there is abundant evidence of

7. The following weights are used to obtain consumer unit epuivalents: adult men=1, adult women=.83, children=.5.

low socio-economic mobility in rural India. Further, the income variable is categorised and it is unlikely that there would be extensive movement between categories over time.

Landholding and ownership of large animals[8] (cows, oxen, buffalo, and camel, but not pigs; sheep: goats, and chickens) are also measured according to conditions existent at the time of the sample survey. Sinee the study is restricted to births occurring in a five year period the assumptions of variable stability are unlikely to be violated. Landholding is measured as a categorical variable, animal ownership as a continuous variable.

The mother's life cycle stage, measured by her age and parity, is expected to have a bearing on survival probability of her child in the non-tetanus model. The direction of the effect is not obvious since although an older or higher parity mother is at a disadvantage physiologically, she is relatively experienced in the behavioural aspects of child bearing and rearing. The high correlation between age and parity necessitated a choice between the two. Preliminary analysis revealed greater explanatory power was associated with mother's age than with mother's parity. For this reason we retained the former variable in the empirical tests of the models.

Analysis

The models in Figures 1, 2 and 3 cannot be tested directly. Such a test would require both a reasonable measure of all of the key variables and a procedure which permits simultaneous estimation of all of the system's implied equations in comparable terms. Neither of these conditions is met in this case. First, a number of critical variables—notably genetic endowment of the infant and the health statuses of the mother and the infant—have not been measured. Others such as birth practices are imperfectly measured by our indicators. Second, appropriate procedures for estimating the implied relationships will vary from equation to equation since some can be estimated with ordinary least squares regression procedures, while others (where the dependent variable is dichotomous with an extreme split) require the use of alternative estimation procedures such as a logistic transformation. The lack of a consistent interpretation of parameters estimated with these varying techniques would render interpretation difficult even if all variables were perfectly measured.

Because of the difficulties in directly estimating the model, we have adopted the strategy of using three complementary but indirect

8. This variable includes solely large animals for two reasons. First, tetanus spores are found in fecal matter and it is reasonable to associate highest risk with larger animals. Second, preliminary investigation showed that large and small animal ownership was more associated with mortality.

procedures for an empirical examination of the factors relating to death in each of the three analytic categories. In Step 1 we examine the individual relationships implied in Figure 1, one at a time. The purpose of this examination is to establish the plausibililty of the model even when all relationships cannot be examined simultaneously. In Step II we use a logistic[9] model to estimate a predictive equation in which the dependent variable is the log odds of the probability of death due either to tetanus or non-tetanus. The independent variables in this estimation include all of the variables on the left hand part of the figures for which we have measures.

This part of the analysis indicates the predictive power of each model as a whole and is suggestive of the role and importance of individual variables. Step III uses the predictive equation approach to explore the importance of individual variables in more detail. Successive equations are estimated adding independent variables in order of their closeness to the dependent variables in the models of Figures 1 and 2. Changes in the magnitude and significance of coefficients with formally included individual variables are evaluated for information about the likely mediation of different casual effects.

In this paper we will not discuss all of the findings from the analysis. The Step I procedures described above resulted in a verification of virtually all of the hypothesised relationships in the tetanus model, but preliminary results are consistent with the model. Step II results are discussed below, and Step III results support the interpretation given there, but are not presented here.

The results for the empirical tests of the three models are complex. In this paper we will present only a summary of some of the most important results. For models 1 and 2 a direct test of all hypothesised relationships is not possible because of the inadequate or non-existent measurement of key variables such as birth weight. Thus, as a summary perhaps the most interesting procedure is multivariate reduced form estimation equation which treats all of the independent variables in the system as additive linear predictors of the dependent variable. Since the dependent variable is dichotomous the statistical model used has logit form.[10]

9. OLS estimates are inappropriate because: (1) The dichotomous dependent variable is not continuous and normally distributed; and (2) predicted values are not guaranteed to fall between 0 and 1.

10. That is, the dependent variable is transformed from P (Y), i. e. the probability of a death from tetanus, to log [P(Y)/(1-P(Y))]. The formal statistics of this kind of model and their interpretation are discussed in William Dumochel, 'The Regression of a Dichotomous Variable,' the Institute for Social Research, Ann Arbor,

Tables 5 and 6 present the basic results for the neonatal period. For each independent variable the estimated coefficient, a standard error and an approximate *t*-statistic is given. The summary statistics for the regression as a whole are given in Table 5.

Table 5: Summary Information: Reduced Model Runs

A. Tetanus Mortality N=2541	$X^2=77.86$ d.f.=8 P(Tetanus Mortality) =.053	P<.001
Source of Reduction in Predictive Error	Amount of Reduction in Predictive Error	% of Reduction in Predictive Error
Model	.013	6.7
Model Error	.175	93.3
Total Error	.188	100.0
B. Non-Tetanus Mortality N=2507	$X_2=36.11$ d.f =6 P(Non-Tetanus Mortality) =.030	P< .01
Source of Reduction in Predictive Error	Amount of Reduction Predictive Error	% of Reduction in Predictive Error
Model	.006	5.1
Model Error	.118	94.9
Total Error	.124	100.0

The results are fairly self-explanatory and will be discussed only briefly. For tetanus. the village environment, previous tetanus, type of birth attendant and the existence of large animals are important. For non-tetanus the important variables are the village environment, the age of the mother, and the type of birth attendant.

The post-neonatal regressions are presented separately for male and female births. In Table 7, the summary statistics for the post-neonatal estimation are given, and the coefficients are shown in Table 8. It will be noted immediately that the situation explains a much higher proportion of the error than was the case for the neonatal estimations presented in Tables 5 and 6. In these regressions, five findings stand out. First, the village environment is very important as a predictor of the probability of death. Second, the sex of the child greatly influences not only the probability of death but which variables explain it.[11] Third, the number of additional children desired accounts for a high percentage of the explained variance. Fourth, background characteristics of the mother such as age and per capita family income do not affect the results when controlled for

11. Ashok Mitra, *op. cit.*, Part III has emphasised sex differentials in mortality and their explanation.

Table 6: Results of Estimation: Reduced Models

	A Tetanus Model		B Non-Tetanus Model	
	N=2541	Approximate t-statistic	N=2507	Approximate t-statistic
Variable	Beta (standard error)	Beta S. E.	Beta (standard error)	Beta S. E.
Constant	—.6643 (.6353)	—1.05	—.3121 (.7543)	.41
Large Animals	.1193 (.0476)	2.51	———	———
Landholding	X^2=8.02	4 d.f.	.05 <p < .1	
No land	.1004 (.2215)	0.45	———	———
.1—4.9	.1782 (14.63)	1.22	———	———
5.0—9.9	— 2437 (18 07)	1.35	———	———
10.9—10.9	— 2397 (1876)	1.28	———	———
20+	.4694 (.2465)	1.90	———	———
Village 3 year Survival Rate	—.0036 (.0008)	4.37	—.0048 (.0010)	4.64
Time to Hospital	—.1664 (.0917)	1.81	.1967 (.1007)	1.95
Prior Child Died of Tetanus	1.048 (.1867)	5.61	———	———
Mother's Age			X^2=11.73 4 d.f.	p.<.05
Under 20	———	———	.7566 (.2251)	3.36
20-24	———	———	—.0350 (.2049)	.17
25-29	———	———	—.1767 (.2206)	.80
30-34	———	———	—.0215 (.2455)	.09
35+	———	———	—.4563 (.4170)	1.09

more directly influential variablet such as the village environment or additional children desired. Finally, the accessibility of medical care has the little impact.

This research on post-neonatal mortality is incomplete in a number of respects. The role of family size preferences is supported empirically, but is not himself explored in this research. Nor is there any discussion of the importance of extended family relationships. Moreover, if would be desirable to examine in detail the role of nutrition as on intermediate variable linking the specefic cause of

Table 7: Post-Neonatal Mortality by Sex: Summary of Estimation Results

A. *Male Mortality*		
X^2 = 72.17	14 d.f.	p<.001
N = 884	P (Male Mortality)=	.152
Source of Reduction in Predictive Error	Amount of Reduction in Predictive Error	% of Reduction in Predictive Error
Model	.027	7.9
Model Error	.319	92.1
Total Error	.347	100.0
B. *Female Mortality*		
X^2 = 207 74	14 d.f.	p< 001
N = 792	P (Female Mortality)=	.189
Source of Reduction in Predictive Error	Amount of Reduction in Predictive Error	% of Reduction in Predictive Error
Model	.086	22 4
Model Error	.298	77 6
Total Error	.385	100.0

death with other social behaviours. Such research would go well beyond the scope of the data used for this paper.

IV. Summary and Conclusion

In this section we will summarise our findings for each of the three general areas which we have explored.

First, tetanus is an extremely important cause of death during the first month. Tetanus related neonatal mortality is primarily affected by variables which relate to the probability of exposure. Thus, at the most proximate level, variables indicating the existence of previous tetanus deaths in the family, the level of training of the birth attendant habitually used by the family and the general level of three year survivorship among the sample respondents are all significantly associated with the probability of death from tetanus. The sex of the child and proximity to medical care are not. More distant from the dependant variable, large animal ownership and landholding are significantly related to the probability of tetanus death; mother's age is not. At the level of general socio-economic environmental variables, education, family income and caste are significant when the variables mentioned above are used as controls, but are clearly related to tetanus death through their effects on variables such as the ownership of animals or the use of trained attendants.

Table 8: Post-Neonatal Mortality by Sex: Results of Estimation

Variable	A. Male Beta (standard error)	A. Male Beta/S E Approximate t-statistic	B. Female Beta (Standard error)	B. Female Beta/S.E. Approximate t-statistic
Constant	2.07 (.67)	3 07	2 27 (.80)	2.84
Time to Dispensary	−.12 (.09)	−1.32	−.05 (10)	−.55
Wife's additional sons desired	X^2=19.25	2d.f.	X^2=6.44	2 d.f.
One or less	.55 (.13)	4.38	.07 (.10)	0.69
Two	−.33 (.15)	−2.24	−.47 (.22)	−2.17
Three or more	−.48 (.21)	−2.32	.39 (.23)	1.69
Wife's additional daughters desired	X^2=2 78	2 d.f.	X^2=121.56	2 d.f.
None or less	−.17 (.13)	−1.34	3.11 (.29)	10.80
One	− 06 (.11)	0.50	23 (.12)	1.86
Two or more	.36 (.25)	1.42	−1 04 (.16)	−6.32
Three year surival rate of Infants in village of Residence	−.0051 (.0009)	−5.60	−.0054 (.0011)	−5.07
Family income per capita	X^2=6 44	4 d.f.	X^2=2.18	4 d f.
Very poor	−1.13 (.48)	−2.37	.05 (.32)	.14
Poor	.24 (.15)	1.53	−.09 (.19)	−.48
Adequate	.11 (15)	77	.19 (.16)	1 21
Moderate	−.01 (23)	−.04	.03 (.26)	.13
Well off	.07 (.23)	.30	.30 (.28)	−1.06
Age at Pregnancy	X^2=5.57	4 d.f.	10 60	4 d.f.
Less than 25	−.15 (.27)	−.54	.72 (.24)	3.03
25–29	.34 (.16)	2.31	.05 (.18)	.30
30—34	−.22 (.18)	−1.21	−.07 (.20)	−.36
35—39	−.06 (.20)	−0.28	−.40 (.23)	−1.70
40+	−.19 (.34)	−0.58	−.48 (36)	−1.32

The causes of non-tetanus neonatal mortality are not as well explained by the variables used in this research. The three year survival rate from the village is the best predictor among the proximate variables. The type of birth attendant is also significantly related. The sex of the child and a history of previous deaths from tetanus are unrelated to non-tetanus death during the first month. At the next level the age of the mother and the distance to the hospital are both significantly related to the probability of death; large animals and landholding are not. Finally none of the socio-economic variables predict the probability of death when they are controlled for the more immediate causes of deaths. They do, on the other hand, help to determine many of the immediate variables which are significant.

For the post-neonatal period the hypothesised set of mortality related relationships differ strongly from that of the first month. The influence of choice variables is larger than that of variables that relate to the condition of birth. The most important finding from our empirical research in this area is the central role of the sex of a child as a determinant of post-neonatal mortality. The second finding is that deaths in general, and deaths of females in particular, are strongly related to the number the additional children desired. If wives report that they want an additional daughter at the time of interview, the odds are greatly reduced that their daughters born during the previous five years have all died. The causality in this relationship is not entirely clear, but the relationship is consistent with the idea that parents may choose to let an unwanted child die of 'neglect.' The other important findings from the post-neonatal period are that the village survival rate is strongly associated with the odds on death at the individual level as in the neonatal age group and that access to medical care and income have little direct impact.

On the basis of the above set of findings we may briefly discuss some of the major factors influencing infant and child deaths as they have been revealed in the various analysis discussed above.

1. *The sex of the child* has little effect on the probability of dying of tetanus neonatorum, somewhat greater effect on the probability of dying of non-tetanus related causes during the first month of life, and is perhaps the variable most strongly associated with the probability of death in the post-neonatal period. Thus the major differential occurs during the part of the childhood period when infectious diseases and nutrition play a central role in determining the probability that the child will survive. It should also be noted that there is strong possibility that neglect plays a role in the high female mortality of this period. The diseases for which the incidence seems particularly high among female children are those which may reflect

neglect or poor nutrition, and the fact that wanted children in general, and wanted daughters in particular, have a higher probability of surviving and confirms the notion that there is an element of choice or at least unconscious neglect involved in these deaths. The additional information (based on other sources) that most of the children who are taken to medical centres are males helps to confirm this pattern.

2. *The village health environment* is an important determinant of the probability of death in all three groups. These individual children born in places where infant survival rates are high have a higher probability of survival even when all of particular circumstances of their family position and their birth have been controlled.

3. *Socio-economic status* is not as influential a determinant of mortality as might be asumed. In the first place, tetanus deaths during the neonatal period are positively associated with landholding, probably because of the intervening effect of large animals present in the household. There is some direct effect of poverty on the probability of death in the post-neonatal period, but it is not strong.

4. *The accessibility* of medical care facilities has little effect on the probability of death during either age interval. Thus neither the curative nor the preventive services seem to be strongly associated with reduced probabilities of death. Measurement problems may play a role in the weak relationships, but these findings underscore the recognised inadequacy of the preventive and curative services available in rural Uttar Pradesh.

5. The one exception to the above pattern which we have been able to measure is the *kind of birth attendant* used by the family which has a significant effect on neonatal mortality. This finding underscores the need for birth *dai* training and increased accessibility of birthing care.

The findings reported above suggest a number of policy interventions. A central one is, of course, the use of tetanus toxoid for pregnant women and improved birth practices for *dais*. The fact that to some extent infant and female deaths may be matter of neglect underscores the importance of family planning services. The community mortality effect suggests that there is special merit in treating the community as a unit and not as a collection of individuals. The lack of effect from the medical accessibility variable suggests the need to examine the performance of rural primary health centres in the area of health care and prevention. On the methodological side this research suggests the value of population based studies of mortality.

Health Education and the Child

C. M. E. Matthews

In general health education principles will be similar for the child and for the adult, but there will be also certain special factors in relation to the child. In this paper first the child will be considered, then general health education principles and, finally, the application of these principles to the child with examples from particular projects carried out while the author was lecturer in health education in the Department of Community Health, Christian Medical College, Vellore.

I THE CHILD

Much health education for the child has to be done through the parents, and the child is usually of great importance to the parents which is a strong positive factor. However, the kind of importance given will vary in different cultures. For some the child will be most important to the parents emotionally, in other cultures the economic importance of the child may be more prominent, for others aspirations for the future of their children may be most important. In some cultures male children will be much more highly valued than females, and the expectations for children of different age groups will also vary. In very poor communities, children may often seem deliberately neglected but this may sometimes be due to lack of belief in the kind of care which, we, as health professionals feel is necessary, rather than to indifference to the needs of the child. This can be seen by the fact that such poor parents will often spend large amounts on rituals which they believe will be beneficial for the child's health. Nevertheless because of extreme poverty they may not be able to give all the care and attention and emotional commitment to each child that more fortunate parents can give, and sometimes the child's welfare may have to be sacrificed to the general good of the family.

Children may be divided into four groups each group having their own special problems and needs.

Dr C.M.E. Matthews is Director, Health and Nutrition, YMCA Tribal Development Project, Yellagiri Hills, Tamil Nadu.

Pre-school children	Below 5 years
School children	5-13 years
Out of school children	5-13 years
Teenage children	13-18 years

Pre-school children

This group could of course be further subdivided, those under 6 months, and those 6 months-1 year having special needs. In general, nutrition will be of great importance for this group and nutrition health education is discussed in detail below, and a particular project described. Control of infections through immunisation and improved sanitation will also be very important. Special target groups for education will include the mother, the father, the grandparents, and elder sisters living at homes, as well as influential leaders in the community. In India there seems to be a preference for traditional treatment rather than allopathic treatment for many important diseases affecting this age group[1] and traditional practitioners should also be educated and their considerable influence used to advantage. For example in Tamil Nadu, *chembadavars* are a kind of traditional paediatrician. They treat especially 'dhosham'—diarrhoea (sometimes with vomiting) with dehydration in children. This is believed to be caused by the mother seeing a woman who has had an abortion recently or a dead dog or dead cat; some evil influence is believed to get into the child through the mother's milk. These *chembadavars* are very influential and people have much faith in them. They could be taught to improve their practice through giving rehydration fluid, and referring to hospital a little sooner.

School Children

For the second group, control of infection will also be important through immunisation and personal cleanliness (e.g., to prevent scabies). Nutrition will also be important. Health check-ups can be easily carried out, as well as immunisation, since this is a group to which there is easy access. Teachers and peer groups will be important influences and the children can begin to take some responsibility themselves for their own health. However, the target group for education must still include the community as a whole, particularly the influential leaders, since many of the changes required (e.g. in sanitation and diet) are outside the control of the children themselves. Particularly in traditional oultures where elders are much more respected than

---

1. C.M.E. Matthews, 'Health and Village Culture in Tamil Nadu,' *Social Action*, 28(n.3, July-Sept 1978), p.251; *Health and Culture in a South Indian Village* (New Delhi· Sterling, 1979).

young people, there is a limit to the amount of change that can be brought about through direct education of the children themselves. Nevertheless from the long-term point of view such education must be given, so that in future when these children become adults they may help to bring about change.

Out of school children

In some communities children not at school will form a considerable group, and these will have their own special problems which should not be neglected. Most of them will probably be working in some way or other, even if not actually employed. They may be grazing cows or sheep or looking after younger children, or helping with housework or farm work. They may not get much opportunity for play, which is necessary for their development, and too much may be expected from them. Again their problems can only be solved by influencing the community as a whole through the leaders. Economic development will be most important in reducing the number of children in this group, and health programmes should be integrated with community development programmes.

Teenage children

Much has been written about the emotional and other problems of teenage children in Western countries, but in developing countries the situation is often considerably different. In India these differences may include much earlier school leaving age or even no school for many, much less freedom and independence, younger age at marriage especially for girls, arranged marriages with social segregation of the sexes before marriage. Although some of these differences seen undesirable, the general result often appears to be more satisfactory, and the Indian teenager generally seems to have fewer problems than the teenager in Western countries. Thus cultural factors are important for this age group as they begin to take their place as adult members of their society, and their socialisation is almost completed.

Although the limitations of direct education of young people, particularly in traditional societies, which have been already mentioned, will still apply in this age group, it is also true that they can do more to influence their own health at this age. Education should include preparation for marriage, population education and sex education. However sex education must be somewhat adapted to the culture and attitudes of the society.

Important target groups for education will include as usual, the leaders, but also parents, employers, teachers, youth groups and youth leaders.

II. HEALTH EDUCATION

The aim of health education is to change behaviour in such a way as to improve health. Health can be taken in its widest meaning, as in the WHO definition. The above discussion indicates the type of behaviour changes required in various target groups in order to improve the health of children in the four groups. Since change of behaviour involves much more than just giving information, which is seldom adequate, a learning experience is usually more effective. Health education is based on the behavioural sciences—social psychology, sociology and anthropology, and insights from these sciences are applied to behavioural change.

For example, according to Cartwright's theory[2] it is necessary to change cognitive, motivational and action structures in order to change behaviour. To change *cognitive structure* people must be given information and logical reasons for the change, in a way that is clear and acceptable to them. This is often regarded as the whole of health education, but actually it is only the first step. Even this is often difficult as people tend to distort what they hear to fit in with their previous experience and beliefs, and it is important to 'start from where they are' and to do this it is necessary to understand the beliefs and customs of the people. Often there is little communication between doctor and patient because of the cultural gap between them. As a result of this lack of communication, the treatment is often wasted because it is not continued for long enough. The patient's expectations are not met, and this leads to lack of confidence in the doctor, and probably transferral to a traditional practitioner with whom there will be not such a communication problem.[3]

To change *motivational structure*, the action must be seen as a way of reaching some goal the person has. Our actions are directed towards reaching certain goals, and if we think a certain action will help us to reach that goal we will be likely to take that action. For example, students will learn what they think will help them to pass their exams, because passing the exam is one of their goals. The relevant goals for health education will include not only that of having a healthy body and being free from disease, but also goals related to status and prestige. For example people will tend to imitate the actions of those in their reference group—that is the group with which they compare themselves, or to which they would like to

---

2. D Cartwright, 'Some Principles of Mass Persuasion,' *Human Relations*, 2(n.3, 1949), p. 253.

3. C. M. E Matthews (1978, 1979), *op. cit.*

belong. Thus leaders can have an important influence, and training of leaders (i.e. influential people) is an important part of a health education project.

For motivation, group methods are important, because belonging to and being accepted by the group is a goal for many people. Many social psychological studies have shown the important effect of the group on the individual. For example, Asch[4] carried out the following experiment. A group of people were asked one after another to judge the length of a line compared with three other lines on a series of cards. All except one member of the group were told beforehand to deliberately give the same wrong answers. The one 'naive' member of the group at first gave the correct answer, but later due to the strong influence of the other members he also started to give the same wrong answer. This happened even though it was obviously wrong, thus demonstrating the strong effect of group pressure on the individual. This group effect can be used for health education, and group discussion can sometimes be more effective than a talk. This was demonstrated by Lewin[5] who tried two different methods of persuading American housewives to eat certain unpopular kinds of meat during the war. After a lecture only 3 per cent tried the meats, but after a group discussion and group decision 32 per cent did so. The group decision involving public commitment to take action is also an important factor. In health education we must take account of the groups to which people belong—family, kin group, neighbours, caste, village and so on. These will usually have a much greater influence on the individual than the health worker will have, and it is necessary to try to influence the whole group rather than just certain individuals. The group can also be influenced through its leaders as already mentioned.

To change *action structure* the action to be taken must be clearly specified and barriers to action must be removed as far as possible. Thus if people have to walk a very long distance to come to a clinic at an inconvenient time and have to wait a long time or pay more than they can afford, they will probably not come at all. Also they must be told precisely what they should do, and where and when they should go for a particular service. Cartwright's theory was originally worked out from a study of how to persuade people to buy War Bonds in the United States. (This has no direct connection with health, but the same behavioural principles apply.) It was found

4. S.E. Asch, 'Studies of Independence and Conformity: A Minority of One Against a Unanimous Majority,' *Psychology Monographs*, 70(n. 9, 1956).

5. K. Lewin, 'Group Decision and Social Change,' in G.E. Swamson *et al.* (eds), *Readings in Social Psychology* (New York: Holt, 1952), pp. 330-344.

that if people were asked to 'Buy an extra $10 bond from the person selling bonds in your office' that was more effective than simply asking them to 'Buy War Bonds'; some may have bought bonds before so feel they need not do any more, some may not bother to find out where to get bonds.

All three of these changes in cognitive, motivational and action structures are required, and the theory is useful in reminding us of this, and that more is required than just giving information.

Kelman's theory[6] describes three different kinds of motivation, (1) Compliance, (2) Identification, and (3) Internalisation.

In the first type, *compliance*, the person carries out the action in order to obtain a reward; if the reward is not given the action will no longer be taken. In the second type, *identification*, the person carries out the action in order to please some individual or group with which the person has a good relationship. This also is temporary only; if the person identified with leaves, the action will no longer be carried out. In the third type, *internalisation*, the persons take the action because it is part of their value system to do so and it is something they feel it is important to do regardless of reward or the influence of others. Ideally it is this third more permanent type of motivation which is required, but often there will be two or three types of motivation at the same time. Sometimes the first two will be more important initially and, only after seeing good results from their own experience, the motivation will become internalised.

Another important theory of Lionberger[7] is concerned with the different stages in the adoption of an innovation. An important feature of this theory is that it reminds us of the time required for decision and committal to some new action, which is not always appreciated. It is no use pressing people to make a final decision for which they are not yet ready. According to Lionberger there are five stages in the adoption of an innovation:

Awareness
Interest
Evaluation
Trial
Adoption

This theory is based on a study of how farmers adopt the use of a new strain of corn and how doctors adopt the use of a new drug.

6. H.C. Kelman, 'Compliance Identification and Internalisation,' *Journal of Conflict Resolution*, (n. 2, 1958), pp. 51-60.

7. H.F. Lionberger, *Adoption of New Ideas and Practices* (Iowa State University Press, 1960), pp. 76-87.

In the early stages the mass media were found to be effective, but in the later stages personal influence is more important, and in the final adoption the experience at the trial stage is the most important factor.

Table 1: Theories

Stage	Cartwright	Lionberger	Matthews
1	Cognitive structure	Awareness	*Probability of reaching goal
2		Interest	
3	Motivational structure	Evaluation	*Importance of goal
4		Trial	
5	Action structure	Adoption	*Resources required

*As perceived by subject.

Table 1 shows a comparison of some of these theories A more detailed comparison of these, plus two other theories, is given by Matthews.[8] The stages shown on the same level are similar and probably roughly correspond. Another theory is also shown, proposed by Matthews,[9] which combines several theories together. According to this hypothesis, the probability P, that a person or a group of people will take a certain action is

$$P = ip(1-e)$$

where p = perceived probability that action will lead to a certain goal

i = perceived importance of that goal in relation to other goals

e = effort required = perceived fraction of total available resources required for the action

Since P increases as e decreases, the factor is $(1-e)$ and not e. P, p, i and e have values between 0 and +1. Comparing this with

8. C.M.E. Matthews, 'A Theory for Predicting Behaviour Change,' *International Journal of Health Education*, Supplement to 18 (n.2, 1975).

9. C.M.E. Matthews (n.8 above); C.M.E. Matthews, V. Benjamin, K. C. Samikkannu, D. Punithavithy and A. Palocaren, 'Education to Overcome Malnutrition in Rural Preschool Children,' *International Journal of Health Education*, Supplement to 20 (n.4, 1977); C.M.E. Matthews (1978) *op. cit.*, p. 251.

Cartwright and Lionberger's theories, *p* may correspond to the cognitive structure or the awareness and interest stages, and *i* to the motivational stucture or trial and evaluation stages, whereas *(1—e)* represents the action or adoption stage. If any one of the three factors is zero the product also is zero and no action is taken however large the other factors may be. Thus however well motivated a mother may be to care for her child, if she does not believe, for example, that giving supplementary food at six months will be good for the child's health, then she will not do it.

Nutrition education project

Some evidence for this theory has been obtained in a nutrition education project for rural preschool children.[10] The behaviour change required was for parents to adopt a recommended diet for preschool children with quantities specified. The three factors *p*, *i* and *(1—e)* were measured by means of specially designed questionnaires before and after the educational stages of the project. It was found that there was a highly significant correlation between *P* and the product *ip (1—e)* and that the correlation with any one or two of the three factors was not as good, so that evidence for the hypothesis was obtained. The measure of *i* was not entirely satisfactory, but nevertheless the product of the three factors including *i*, gave a better correlation than the product of the other two factors omitting *i*.

In this project the education was given in three stages corresponding to *p*, *i* and *e*; that is, information stage, motivation stage, and action stage. Methods used in the information stage included leaders' meetings, film shows, drama, flash cards, exhibitions, leaflets, tapes, "Radhakalatchebam" story and songs, and group teaching. Also children between 5 months and 5 years were weighed monthly and their weight recorded on a card which showed standard weight for age curves (80 per cent and 60 per cent of Harvard 50th percentile) compared with the child's own weight curves.[11] The mothers were taught to interpret changes in their children's weight curves. Mothers of under-weight children or of those losing weight were visited each month and some were also given milk during a drought period.

Motivation was given through leaders' meetings, admission of malnourished children with mothers in the rural hospital for feeding, and feeding in nursery schools, and prizes given for nursery school children. The feeding (both in the hospital and nursery schools) provided a learning experience and parents were able to see for

10. C.M E. Matthews (1977), *op. cit.*

11. D. Morley, *Paediatric Priorities in the Developing World* (London: Butterworths, 1973).

themselves the beneficial effect of such feeding. Only cheap locally available food was used in the nursery schools so that mothers could see that it was not beyond their means About 250 calories per day were given, and the children also had their usual meals at home.

In the action stage attempts were made to improve the economic status of the people and give them a means to earn more money, through mat weaving, sisal fibre work and brick making. These efforts were not very successful in this village during the time of the project, although the mat weaving and sisal fibre work were very successful later in other villages. The feeding may also be regarded as part of the action stage (as well as part of the motivational stage) as it helped to make the required action easy and to remove barriers due to lack of money.

Immunisation was also given with DPT, BCG, and measles vaccine and a very good response was obtained for this. A high level of immunisation (80 per cent to 90 per cent of the children under 5 years having completed the required doses) was maintained continuously which we were not able to achieve in any other village.

Table 2: Weights of all children under 5 years

Area	Per cent children with weight less than 60 per cent standard*	
	Before	*After*
Experimental	11 0	4.9
Control	11 7	14.7

*Standard = Harvard 50th percentile.

The results showed improvement in weight distribution in the experimental area, whereas in the control area, where only the survey was carried out, weight distribution became worse. This was due to a severe drought in the middle of the educational period, and weight distribution in the control area had not yet fully recovered from this at the end of the project. In spite of this drought there was an improvement in weight distribution in the experimental area. Table 2 shows the per cent of children with weight less than 60 per cent of the Harvard 50th precentile before and after education for the experimental area and the control area. In the control area the survey was carried out at the beginning and at the end of the project but there were no other activities in this area. Due to the drought the improvement in the experimental area was reduced, but the difference between experimental and control areas can be clearly seen. The control area has actually got worse due to the drought but the experimental area has improved.

Table 3: Score for food given (including only children not being breast fed)**

Age group	Experimental area		Control area	
Months	Before	After	Before	After
13-24	.439	.590	*	.425
25-36	.452	.565	.482	.448
37-48	.592	.580	.490	.460
49-60	.528	.575	.539	.456
Total	.504	.578	.502	.410

** Maximum Score 1.00 *3 only in this group

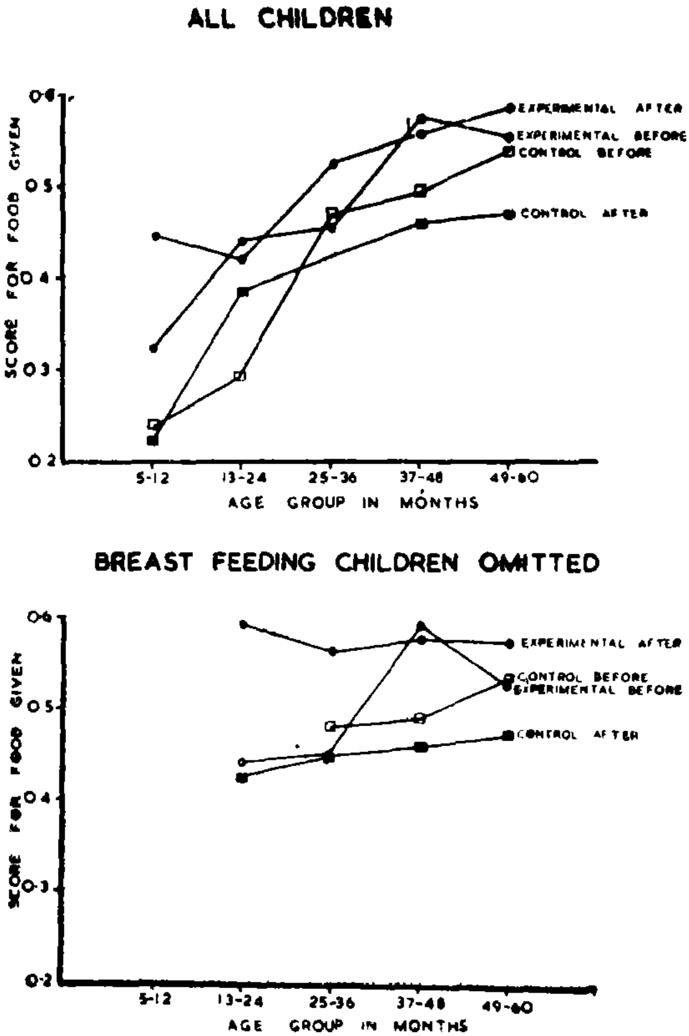
Also after the project, the food given (as reported by the mothers) was considerably nearer to the recommended diet for the experimental area especially for the important age group of children under 1 year. Table 3 shows the score for food given for experimental and control areas before and after the project by age group. Since it is impossible to estimate the amount of breast milk given, and since children being breast fed will eat less of other food, these children are omitted. It can be seen in Table 3, that the score has increased in the experimental area whereas it has decreased in the control area. This increase in the experimental area is greatest in the 1-2 year age group where before the score was comparatively low; after the education it is as high as for the other age groups. This is mainly due to mothers reporting that they are giving more supplementary food at this age. If all children, including those being breast fed, are considered, there is also an improvement after education for the experimental area, and a fall in score in the control area, but the score increases with the age group. For the experimental area the score after the education is much increased for the 5-12 months age group. (See Fig.1).

Table 4: Mean Scores for Food Given Compared with Computed Probability *P*

	Experimental area		Control area	
	Before	After	Before	After
Score for food given	.504	578	.502	.456
P=ip (1—e)	.164	.206	.176	.107

As already mentioned a highly significant correlation ($p < .001$) was found between scores for tood given and the calculated values of $P = ip\ (1-e)$. Mean values for these before and after education for experimental and control areas are shown in Table 4. In the experimental area both values have increased, whereas in the control area

Figure 1: Variation of Score for Food given with Age Group for Experimental and Control Areas before and after the Project



both have decreased. The values varied with different caste groups living in different localities in each area, and each area was plotted separately to show the correlation.[12] This significant correlation is evidence in favour of the hypothesis.

Table 5 shows the mumber of deaths of children under 5 years in the experimental and control areas during the study period and it can be seen that deaths are much reduced in the experimental area.

12. See Figure 4, C.M.E Matthews *et al.* (1977), *op. cit.*

Table 5: Deaths of Children Under 5 Years During Study Period

	Experimental Area	Control Area
Number of deaths	5	16
Total number of children	140	173
Per cent deaths	3.6	9.2

An indirect beneficial effect of the project was an increase in the family planning acceptance rate from 5.6 per cent of eligible couples before the project to 17.3 per cent towards the end. During this period per cent of acceptance in most other villages in the area remained approximately the same.

Other studies of knowledge, attitude and practice in nearby villages,[13] where mainly individual education was given, showed very little improvement for nutrition even after many years of service and education. (Only 1 village very close to the Christian Medical College and the rural hospital there, showed good improvement in attitude.) To change the diet of preschool children is a particularly difficult educational problem. The attitudes towards early introduction of supplementary foods are initially very negative[14] and considerable effort is required for a poor family to improve the diet. Also mothers do not believe that more food is needed. Thus it is necessary to change all three factors *p*, *i* and *(1—e)* by a considerable amount in order to achieve the desired action. In spite of these low initial values and in spite of the effect of the drought which actually decreased the values in the control area, an increase was obtained in the experimental area. This seems to indicate that application of behavioural science principles really can give better results in practice.

The project described was for children in group 1 (i.e. under 5 years), but the same principles can be applied to the health problems of children in the other three groups. For example for the out of school children, group 3, one desirable change may be to reduce the work expected from these children and to give them at least part-time education through night classes; also to reduce the number of children in this group. In this case the action stage will be very important because of barriers due to economic factors and, as for nutritional problems, economic development should be closely integrated with health services. Motivation will involve providing

13. C.M.E. Matthews and V. Benjamin, 'Health Education Evaluation and Beliefs and Practices in Rural Tamil Nadu,' *Social Action*, 29 (n. 2, April-June 1979), pp. 115-149.

14. C.M.E. Matthews *et al.*, (1977), *op. cit.*; C.M.E. Matthews and V. Benjamin, *op. cit.*

suitable work opportunities for those with some education, and in the long term, the demonstration that these children who work less and study more are eventually more valuable to their family and their society.

Other factors in health education

An important factor in health education which often seems to be overlooked is obtaining the confidence of the people. Only if they trust us, will they believe what we tell them and we will be able to increase the factor *p*. Only if they have confidence in us, will we be able to motivate them. Therefore it may be important to start any project with some tangible help that all can appreciate. Thus curative work cannot be entirely neglected if we want cooperation for preventive work. For example in the nutrition project described, free treatment was given to many poor people from the experimental area, and also food was given to children in the hospital and in nursery schools. Sometimes health workers are so keen to make the project self-supporting at an early stage that they demand payment from the people right from the beginning even before this confidence has been established, and this may make cooperation more difficult.

Finally for successful health education more use should be made of qualified health educationists. It is often not appreciated that health education is a professional specialisation in itself with its own technique which has to be learnt. The 'common sense' idea of health education as merely imparting information through giving talks and showing pictures is still very widespread, and the scientific basis of the behavioural sciences is not often known. Thus it is assumed that anyone can do health education[15] and the need for special training is not appreciated. Certainly everyone has to be involved in giving health education, but not all can plan how it should be done, or train others to do it. Neglect of simple principles well known to any trained health educationist may lead to serious difficulties. For example, cooperation with a certain community may be poor because the health workers are communicating with the 'formal' (official) leader, and are neglecting the more influential 'informal' (unofficial) leader. If a leadership survey is carried out as part of the base line survey, such mistakes will not be made.

In India, and indeed in many other countries, there is a shortage of trained health educationists, and since their potentialities are not fully appreciated, and even those there are, are not always employed to the greatest advantage. The expense of an extra salary in a

15. C.M.E. Matthews, 'The Missing Link in Medical Care,' *Journal of Christian Medical Association of India*, 49 (n.7, July 1974), pp. 328-331.

category not previously employed by a particular institution may discourage new appointments, but if cost-effect analyses are carried out, with criteria of effect on the community as a whole, the extra expense could easily be justified. The project described above shows the greater effect obtained for nutrition education, and a similar project for leprosy education again showed a much greater effect when behavioural science principles are followed.[16] Evaluation is often neglected, and is seldom given in terms of effect on the whole community. Criteria such as per cent of children immunised, per cent of children under-weight, per cent of eligible couples accepting family planning etc., for a given cost with and without the help of a trained health educator are required. If we are really serious in wanting to bring the benefits of health services to the maximum number of children in this International Year of the Child, it is such criteria that we must consider when planning the inputs of our programmes.

---

16. C.M.E. Matthews, M. Jesudasan, A.J. Selvapandian and V. Benjamin, *A Leprosy Health Educatinn Project* (in press).

The Training of Health Auxiliaries for Basic Health Services

Eric Ram

When 1979 was declared by the United Nations as the International Year of the Child, many people asked Mr Henry Labouisse, the Executive Director of UNICEF, 'Why a Year of the Child?' to which he replied, 'My answer is, for 2,000 million reasons, most of them under 10 years of age.'

Out of these 2,000 million children of whom Mr Labouisse is speaking, most live in Asia. Two-thirds of them are children who are deprived of basic health services and, because of their special vulnerability, pay a heavy price in terms of primitive deaths, ill health retarded growth and disabilities of various types. Children in India, as in other developing countries, are a high-risk group and their tragic situation calls for special efforts to recognise and meet their health-related needs. Strategies for health and development need to focus where the need is greatest, i. e., on this most underprivileged of all population groups. It is in this context that we would like to share with readers the experiences gained in the training of health auxiliaries for basic health services in the Miraj Project, a three year integrated Health Service Project undertaken in collaboration with Maharashtra State, Sangli Zilla Parishad (District Administration), Miraj Medical Centre and the Christian Medical Commission of the World Council of Churches, and initiated in July 1973.

With the difficulties, problems and aspirations of the rural people to improve their own health very much in mind, the principal aim of the project was, and is, to provide basic health and medical care to all sections of the rural community, including children and women. One of the specific objectives of the project was to retrain uni- into multipurpose health workers to work within such an integrated health service and, further, to train indigenous health workers such as *dais*, Health Aides, Health Promoters and indigenous medical practitioners—since these constitute the existing human resources of the area—to provide basic health care within the framework of the integrated health service.

Dr Eric Ram, formerly Director of the Health Services Project at Miraj, is currently Associate Director, Christian Medical Commission, Geneva.

Training and retraining of health workers

In the Miraj Integrated Health Services Project, the training of *dais*, Village Health Aides and Health Promoters and the retraining of unipurpose into multipurpose health workers is of a very practical nature. It consists, firstly, of a one-week training period for all the the trainees including the medical officers of the primary health entres. All the basic health workers and auxiliary nurse-midwives and their supervisors undergo an initial training of six weeks. The supervisors undergo an additional training of two weeks. Teaching methods emphasise practice, persuasion and guidance approaches. Thereafter, continuing education sessions once a month for all categories of staff become a part of the regular activities. Experience showed that, although the initial six-week training period gives trainees a good start, it is the continuing education which sustains and improves their knowledge and skills. It also helps in developing positive attitudes and self-confidence in respect to their new roles.

I. *Indigenous dais*

The baseline survey data collected in early 1974 indicated that, of all the deliveries conducted in the past in the project villages, 80.6 per cent were conducted by *dais*, 11.1 per cent by trained auxiliary nurse midwives, nurse-midwives and doctors, 6.3 per cent by patients' relatives and 2.0 per cent at the hospitals and primary health centres. The survey also showed that 90 per cent of the deliveries were conducted in the home.

With the help of local communities *gram panchayats* (village councils), auxiliary nurse-midwives, nurse-midwives and the public health nurses compiled a list of all the practising *dais* in the 58 villages; of whom there were 186. On the average, each village had 3.2 *dais* or 1 *dai* per 1,200 population. Out of the total of 186, 174 *dais* (93 per cent) readily came for and received training.

The basic aim of training is to utilise available human resources to improve midwifery services in rural areas. While not trying to change too much too soon in the actual practices of the *dais*, emphasis of the training is on simple but scientific techniques of conducting home deliveries with the elements of good antenatal, intranatal, and postnatal care, basic cleanliness and hygiene. *Dais* are taught to recognise danger signals in pregnancy and labour so that they are able to refer cases or call in help at a sufficiently early stage. They are also taught to motivate their patients to use one of various methods of family planning as well as to contact defaulters. The simplest kind of health teaching is employed, making use of flash cards and flannelgraphs.

The training is conducted by the public health nurse, nurse-midwife and auxiliary nurse-midwife of a sector at sector headquarters. Initial training is for 7 days with a further day of training after 15 days. This is followed by a day each month in subsequent months.

Each *dai* is provided with autoclaved delivery packs. She uses 1 delivery pack for each delivery. The pack contains a razor blade, 2 pieces of 9 inch long thread, 2 per cent iodine solution in a used penicillin bottle, 2 cotton balls and 2 Q-tips and a piece of cotton cloth. The cost of such a delivery pack is 50 n p. (US $0.05). Training and utilisation of *dais* as a part of the total health team has proven very effective and useful both in terms of improving MCH service and in increasing their acceptance and respectability in their village communities.

2. *Village Health Aides and Health Promoters*

Previously, each auxiliary nurse-midwife was provided with a local part-time woman attendant who was paid Rs 50* per month. Her main job was to sweep the subcentre and accompany the auxiliary nurse-midwife on house visits or home deliveries. This seemed such an under-utilisation of this category of staff that special training was organised to transform these local women, who knew their community well, into useful members of the health team.

After an initial week's training, their designation is changed from 'Part-time Attendant' to 'Village Health Aide' and their wages raised from Rs 50 to Rs 60 per month. They work directly under the supervision of the auxiliary nurse-midwives, are able to do early reporting of pregnant women and postnatal cases, births and deaths, communicable diseases, fever cases, neonates and infants unprotected against smallpox. They collect infants and under-fives for DPT, polio and BCG, bring mothers for TT and contact defaulters. They help in doing dressings and, in the nurse's absence, distribute simple medicines for minor ailments. They pack and distribute iron and folic acid tablets, motivate women for family planning, distribute pills (refills), contact defaulters for family planning, antenatal cases, TB, leprosy, DPT, TT, etc. They accompany the nurse during home visits and home deliveries. So far, 40 indigenous village health aides have been trained.

Out of 173 *dais*, 20 have been selected and trained to be health promoters in 20 villages where there are no subcentres.

3. *Indigenous medical practitioners*

The baseline survey conducted at the beginning of the project revealed that a vast number of villagers especially in villages farther

*7.50 Rupees = US$1

away from the towns, were relying on indigenous practitioners for medical care, just as they did on *dais* for deliveries. Thus, it was appropriate that indigenous practitioners should be integrated into the health team. Six ayurvedic doctors and six allopathic doctors (MBBS) are thus included in the team on a full-time basis. The former are in charge of ayurvedic clinics while the latter are responsible for the primary health centres. Within a three year period, the ayurvedic doctors treated 40 per cent of the total of 3,88,295 patients treated by the team. This is significant, as the area which they cover is inhabited by only 12 per cent of the total project population. Ayurvedic medicines and some allopathic medicines are used by these doctors.

Also serving the project area on a private basis are 62 untrained practitioners of ayurvedic medicines, 33 RMPs (registered medical practitioners with no formal training), 3 practitioners of 'Homeopathic medicine', 1 Unani medical practitioner, 17 'Vaidyas' (herbalists) and 3 bone-setters One of the tasks of both the allopathic and ayurvedic trained doctors of the health team is to conduct on-the-job training for these practitioners When the trained doctors go to a village on their weekly visit, they invite the local indigenous practitioners to the health centre of health post to join them in examining and treating patients. This training method is beneficial to both parties concerned. The untrained practitioners are encouraged to continue most of their traditional practices while being persuaded to discard some of the non-scientific ones. One of the hardest walls to break is belief in certain age-old superstitions. However, with the passage of time, a great change in overall attitudes is taking place in this regard; a process from which the trained doctors also benefit.

The untrained practitioners appear happy to be associated with the health team and to be seen in public with team members. They greatly appreciate the recognition they thus, deservedly, receive. As time goes on, mutual trust increases and the health auxiliaries also begin to consult with the indigenous practitioners and refer patients to them for certain ailments This removes their initial fear that the health team is there to take away their jobs and further strengthens relationships. Rural people have great faith in these practitioners and in most cases, they are the first contacts for the majority of ailments. Therefore, their increasing health knowledge is of the utmost importance.

Services provided by the project*

The health services provided are a combination of curative,

*In this section I draw on an earlier paper, 'Integrated Health Services Project in Miraj, India' in *Children in Asia* (Bangkok: UNICEF, 1977).

preventive and promotive types of care. All section of the population including women and children, are benefited by the services.

The male and female staff have different job responsibilities. The following services are provided by *female* health staff.

1. *Maternal care*

The auxiliary nurse-midwives, health promoters, *dais* and village health aides systematically visit each home and register every woman who is pregnant for 3 months or more. Antenatal care is given throughout the antenatal period. Blood is examined for albumin and sugar, blood pressure is checked and recorded. All the female staff are taught to recognise the difficult and abnormal cases using the 'at risk' method. Each antenatal case is given iron and folic acid tablets for at least 3 months. She is also given 2 doses of tetanus toxoid in the last trimester of her pregnancy by the auxiliary nurse-midwives.

Special nutritution education and demostrations are organised for antenatal mothers. About 65 per cent of the deliveries are conducted by trained *dais* at home, 30 per cent by auxiliary nurse-midwives at home, 3 per cent by patients' relatives and 2 per cent at the primary health centres and hospitals. Thus, about 91 per cent of all deliveries are conducted by trained personnel of various categories. Education of the mother continues throughout her pregnancy in various aspects of antenatal care and care of the newborn. Postnatal care is provided for up to 40 days after delivery. The auxiliary nurse-midwives and nurse-midwives superwise the maternal care given by *dais* and village health aides.

2 *Child care*

Every child under 5 years of age is registered by the auxiliary nurse-midwife. The *dais*, health promoters and village health aides help her in this regard. By measuring the midarm circumference of children with a tricolour tape, they are judged to be receiving normal nourishment, being borderline or undernourished. If the child is borderline or undernourished, his weight is taken and recorded on the 'Road-to-Good-Health' chart each month. Special food supplements are given to these children. Special care is given to children suffering from acute diarrhoea, dysentry or gastro-enteritis. A child is also considered 'at risk' if he weighs less than 1.5 kg. at birth, fails to gain weight in successive months or loses weight in 2 successive months, or if his weight is less than 65 per cent of the norm for an Indian child of his age.

A regular and systematic immunisation programme has boosted the immunisation status of children under 5 in the community. About 99.7 per cent of them have received primary vaccination

againt smallpox. About 82 per cent have 2 doses of DPT and polio vaccine and about 60 per cent have BCG. The general shortage of vaccines has hampered further acceptance of immunisation programmes.

The village-level workers are taught to screen children, and mothers are taught to recognise danger signals indicating children 'at risk'. They are also taught to feed early and give foods which are readily and cheaply available in the villages.

3. *Simple medical care and referral of difficult cases*

Treatment for minor ailments is provided by auxiliary nurse-midwives for half a day each day at the subcentres. It has been noticed that about 80 per cent of the patients are taken care of by health auxiliaries in the subcentres and in the health posts. Difficult cases are referred to doctors and are seen by them during their weekly visits and, if necessary, referred to the nearest primary health centre or district hospital for immediate attention. Although no more than about 2 per cent of patients require referral, it is nevertheless felt that a referral system is an essential part of the service.

Each patient is charged 0 25 n.p for any one type of medicine given for 3 days. An amount of about Rs 20,000 per year is collected through this source which is ploughed back to buy more medicines.

4. *Family planning*

A household survey has been conducted and an updated list of all married women according to parity is maintained. Family planning advice is given and motivation done according to parity. Refills of oral pills and 'nirodh' (condoms) are given to the prospective acceptors. Follow-up of sterilised couples and contraceptive users is regularly done. Women motivated for tubectomy are brought to the primary health centre or the hospital for the operation. Vasectomy is generally done at the subcentres and primary health centres.

5. *School health*

The health staff give health education in all the schools in their jurisdiction. They also conduct physical examinations of all the school children once a year, recording their findings on individual school health records. Those children found with defects are referred to the doctors during their weekly clinic visits. This saves the doctors much time and frees them to do other pressing jobs. Environmental sanitation in the school is also stressed by making proper provision for drinking water, latrines and urinals for the boys and girls. All school teachers are involved in the school health programme.

6. *Health education*

Home visits are made for half a day each day. One of the main purposes of the home visits is to impart health knowledge to family members. Simple audiovisual aids such as flash cards, flip charts and flannelgraphs are used. Various demonstrations are given to groups of mothers. One of the endeavours has been to educate the public in regard to the availability and utilisation of health services in their villages. This is done by distributing a printed pamphlet in each home, describing all available health services. This method has had a far-reaching effect in raising community awareness. As a result, the utilisation of health services has greatly increased and many individuals and *gram panchayats* have begun to approach the project staff directly if they find any difficulties or disparities in the health services.

7. *Prevention of blindness*

An effort to prevent blindness was mounted from the beginning of the project. The basic health workers and auxiliary nurse-midwives treat eye infections and conjunctivities at a very early stage and teach people how to protect their eyes from infection and injuries. Infants and children under 6 years of age are given vitamin A concentrate once every 6 months to prevent vitamin A deficiency. By January 1977, 32,399 doses of vitamin A concentrate had been given to this age group.

Health workers are taught to recognise cataract and send such patients to the hospital for cataract removal. In September 1976, a special eye camp was arranged at the Miraj high School with the help and cooperation of Miraj *panchayat samiti*, the Lion's and Rotary Clubs and the Miraj branch of the Indian Medical Association. Dr Modi, the famed eye surgeon, examined more than 2,500 patients and operated 706 from the project villages, removing their cataracts.

Health staff advise mothers to include such locally available vegetables as carrots, drumsticks and drumstick leaves, *amla* (a berry), rich in vitamin A, in their daily diet.

8. *Management of diarrhoea*

One of the most common illnesses found in the villages, especially among the children, is diarrhoea. However, with the weekly disinfection of wells the incidence has been reduced by 80 per cent. Home management of diarrhoea is also taught. Each mother learns how to make an 'antidiarrhoea mixture,' by using 1 teaspoonful of salt, 5 teaspoonfuls of sugar, 1 teaspoonful of baking powder, and 1 teaspoonful of lemon juice in 1 litre of boiled water. The idea of an 'antidiarrhoea mixture' has caught on well and has been very useful as

a first aid in the management of diarrhoea and prevention of dehydration leading to undernourishment and other complications.

9. *Coordination of activities with male staff*

All births, deaths, fever cases and children unprotected against smallpox are reported to the basic health workers during their weekly get-togethers so that the latter may take immediate steps to help. Basic health workers are also informed of men wishing to have condoms.

The following services are undertaken by *male* staff:

Detection of infectious diseases. Each household is visited by the health staff once a month to give health teaching and to enquire about the occurrence of any communicable diseases such as chickenpox, smallpox, cholera, typhoid, gastro-enteritis, malaria, infectious hepatitis, polio, etc.

Vital statistics. Births, deaths and marriages are recorded and reported for each village separately each month.

Smallpox. Smallpox search is done during regular visits: special emphasis is on neonatal vaccination, primary vaccination and revaccination at an interval of 3 years. Every Friday is set aside for vaccination.

Malaria. Detection of fever cases, collection of blood smears are made. Chloroquine tablets are given as a presumptive treatment. Positive cases are given radical treatment by the health inspectors. Focal spraying is done whenever a positive case of malaria is detected.

Tuberculosis. The basic health workers collect sputum from all cases reporting persistent cough with fever for more than 3 weeks. The smear made from the sputum is fixed and sent to the district tuberculosis officer. Once the case is declared positive, domiciliary treatment is given by auxiliary nurse-midwives.

Leprosy. Detection and reporting of leprosy cases in their early stages is done by the basic health workers. The diagnosis is done by the leprosy technicials who also start the initial treatment. The follow-up treatment is done by the health staff.

Environmental sanitation. Disinfection of wells with TCL (bleaching powder) is carried out once a week. A chart indicating the amount of TCL required for a well of a certain diameter with so much water depth is used. This reduces the calculation problem for the worker and facilitates quick disinfection. The weekly disinfection of

drinking wells has helped out down the incidence of diarrhoea and gastro-enteritis by 80 per cent.

Family planning. Identification and maintenance of monthly updated lists of couples in which the wife is in the reproductive phase and who are thus 'eligible' for family planning is done by basic health workers. They also motivate these couples, particularly the men, to accept family planning. Advice on terminal methods for those with more than two children is given and conventional methods advised for the others. Nirodh (condoms) are distributed to men acceptors during their monthly visits. The basic health workers also follow up sterilised patients.

Health education. Basic health workers visit each home in their area at least once a month. They give health teaching to the families while collecting information on illnesses from them They use simple but effective audiovisual aids such as flash cards, flannelgraphs, recognition cards etc. Demonstrations are held for groups in various streets in the village.

School health. Schools are visited regularly by basic health workers and health talks are given to the children with the help of various audiovisual aids. Once a year, screening of children is carried out and those found with any defects are referred to the doctor during his weekly clinic. Environmental sanitation and physical education of children are also part of the regular activities.

Treatment of minor ailments. During house visits, basic health workers provide medical care for fever, cough and cold, diarrhoea, eye infection and first aid for minor injuries, particularly in outlying hamlets. Drugs are always carried by the basic health workers in their house visit kits.

Inoculation. Inoculation against cholera and typhoid is carried out by the basic health workers once every 6 months, especially during the pre-monsoon season.

Coordination of activities with female staff. All antenatal cases, postnatal cases, deliveries and unprotected children for BCG, polio, DPT, etc., are reported to the auxiliary nurse-midwives during their weekly meetings.

Health committees

One of the first things done earlier in the development of the project was to help the *gram panchayats* to form a health committee for

each village. The health committee members are elected by the council and consist of at least two women plus two people from the Harijan caste group in a committee of seven people. This *gram panchayat* health committee is responsible for the health of the village, and a copy of the health report prepared by the health workers is submitted to it each month. In the beginning, it seemed rather odd that even the paid government workers should make their report to the committee but, with the passage of time the committee itself assumed greater responsibility and served as a liaison between the *gram panchayat*, the health staff and the community. The committee helps interpret the health needs of the people as well. One of the most important benefits is that people feel that the health team is there to serve them so that they can demand and utilise its services. This is quite evident, for example, from the fact that there are no fixed hours at the health centres and people come to the basic health worker's home to have a blood smear taken or at night to collect their medicine for fever.

Some project achievements

1. *Reduction in morbidity and mortality*

Between January and May 1974, a survey based on a 10 per cent random sample was conducted to collect baseline data. In January 1976 and again in January 1977, an evaluation survey, also based on a 10 per cent random sample, was conducted. The health data thus collected were coded and then processed by computer. Here are some of the main findings of this comparison.

Table 1: Comparison of Baseline Health Data with Evaluation Survey Health Data

	Jan 1974	Jan 1976	Jan 1977
Crude birth rate/1000 pop.	26.3	24.5	21.4
Crude death rate/1000 pop.	9.8	9.0	8.5
General fertility rate/1000/women between 15-44	152	115	102
Total fertility rate/1000 women between 15-44	3.4	3.1	3.0
Per cent of target couples (with 3 or more children) sterilised	30.6	51.7	89.1
Maternal mortality rate/1000 live births	3.7	1.0	0.25
Infant mortality rate/1000 live births	67.6	34.4	23.1
Neonatal mortality rate/1000 live births	42.1	28.0	21.2
Post neonatal mortality rate/1000 live births	25.6	6.5	5.3
Primary vaccination against smallpox	85%	98%	99.7%
Completed doses of DPT	2%	60%	85%
Completed doses of polio	1.5%	65%	83%
Level of BCG vaccination	6%	45%	55%

A marked decline (of over 80 per cent) in the incidence of diarrhoea, scabies, gastro-enteritis and ascariasis has also been seen, indicating an improvement in the general hygiene and sanitation of the community. Reduction in the incidence of diarrhoea and gastro-enteritis is attributed to regular weekly disinfection of wells.

2. *Social services and social justice*

One of the most valuable achievements of the project is an indirect result of the process of providing basic health and medical care to all sections of the rural community, which is the project's principal aim. Provision of improved social services and support of social justice in many and varied fields is an inevitable part of providing health services. Although such 'spin-offs' cannot be measured in numerical terms, there is nevertheless much tangible evidence for the project's achievements in this area. From its beginning, the *dais*, health promoters and village health aides working in the project, who are all from the local villages, have been fully accepted and have served as a vital link between the community and the health team. The auxiliary nurse-midwives and the basic health workers, on the other hand, were not natives of the project villages and they invariably underwent a test of acceptance by the local communities. Except in two cases involving auxiliary nurse-midwives, however, all the non-local health workers passed this test.

As they began living and working with the people and paying regular visits to their homes, there was abundant evidence of the growing faith, confidence and esteem in which they were held. They are regarded as more than just workers: rather as friends of the people. They participate in weddings, *mundan* ceremonies (first head-shaving), naming ceremonies, funerals, etc. People come to them for as wide a variety of reasons as having their letters read or discussing the purchase of bullocks. The female health workers help from *mahila mandals* (women's societies), while male health workers organise men's groups and *yuwak sanghs* (youth clubs), which in turn become involved in the development of health and social activities in the villages. For example, whenever a mass immunisation programme is to be mounted in a village, it is through these local clubs and societies, the health committees and the village councils, that they are organised. It is these groups who take a keen interest in seeing that each home takes advantage of these services.

The basic health workers also become interpreters of government policies, services and facilities, for example, they are able to help small farmers in securing loans, improved seed, chickens and livestock from the government agricultural extension programme. They become an important link between the Block Development

Officer and the community. People, particularly the poorer people, realise that it is advantageous to rally together and organise themselves in groups according to needs and approach the officer concerned collectively, rather than making individual approaches.

During training, all health workers of various religions and castes sit together and take their meals together. This is quite a new experience for all of them. However, one of the most remarkable changes is that *dais* from the Harijan caste are called upon by upper caste Hindu women to conduct deliveries. The reason they give is that 'the *dais* are now trained in a scientific method.' Whatever the reasoning, a great breakthrough in one of the age-old social customs has taken place.

The most important need of landless labourers in the project is to free themselves from bonded labour. Associated with this need is the strangehold of very high compound interest they are forced to pay on initial loans to certain *sahukars* (rich businessmen). Twenty years ago, a landless labourer may have borrowed Rs 200 for the marriage of his daughter from *sahukar*. Over the years, he would most likely have paid Rs 1,000 in interest and still owe the initial loan of Rs 200, not knowing how to get out of this obligation. In order to fight against such exploitation, it is necessary for the landless labourers to organise themselves. This is not an easy process, but a beginning has been made to help a small group defend its interests against the rich farmers, shoe factory owners aud businessmen. With the help of the district authorities, many have been relieved of their bonded labour obligations.

And this is only the beginning of a larger battle against social injustice. By working closely with the village councils on the issue of housing, it has been possible to obtain free plots of land from the councils and some money from the Zilla Parishad (district administration) to enable the labourers to build huts on the land thus acquired. It has taken almost two years to accomplish but, by the end of 1977, 156 such huts had in fact been constructed—a slow but good start.

This success has generated a new type of atmosphere in the rural communities. There is evidence of new hope among the poor. Thus, in the process of providing health services, the local health workers also find themselves, inevitably, in the role of providers of social service and promoters of social justice.

3. *Community involvement and participation*

Community involvement and participation in the Miraj Project started at the planning stage with the aim of making it a people's project rather than one imposed on them. As the project moves

on, community involvement also deepens. From planning, the community has moved on to implementation of the project itself. Elements of self-help as well as partnership in health care are everywhere in evidence. The community is responsible for finding and providing a house for the subcentre and a home for the auxiliary nurse-midwife. The community arranges for mass immunisation and collection of the children for vaccination. Community members maintain close supervision over chronic TB and leprosy patients to ensure domiciliary treatment on a long-term basis. They help trace defaulters and persuade them to continue treatment. They share the cost of water disinfection by 50 per cent of the costs of TCL (bleaching powder). They organise and conduct *gram safai* (village cleanliness) on a self-help basis. They help indentify the *dais* and the local village health aides. They form health committees as one of the sub-committees of the village councils. Through the health committees, they coordinate all health activities in the villages. People look upon the project as their own and take pride in it.

4. *Health Education for self-help*

Health education on simple health principles, hygiene and sanitation, given to rural communities, forms the basis of all health services in the project. Education for self-help is emphasised as a result of the realisation that, in spite of having trained doctors, basic health workers, auxiliary nurse-midwives, *dais* and village health aides, there are not enough of them to go to around to meet all the needs of the community. People are therefore trained to take care of themselves for some things, to go to the indigenous practitioners and *dais* for others, to the primary health centres for still others and to the district hospital for certain specific needs Health auxiliaries play an important role in imparting to the people a basic knowledge of their own bodies, prevention of certain illnesses, cure of others and health in generalso that they are not totally dependent on the established health care system.

A considerable amount of the health auxiliaries' time is spent teaching people that diseases are not casued by the wrath of God or ill fate, but by germs, and that many of them can be prevented by improving health habits. They are taught to recognise basic signs and symptoms of some common illnesses and when and where to seek help. One of the examples of what people can do at home successfully is management of diarrhoea by home-made rehydration solution.

Because health auxiliaries spend much time with families on health education, a change in their attitudes can be seen. They become more sensitive to people's needs and establish closer interpersonal realtionships. Over the months, they develop more confidence and are shown grealer respect by the community.

Day Care for Underprivileged Children: A Study of Creches in Delhi

Alfred de Souza

This paper presents a descriptive analysis of selected creches that were located in the slum resettlement areas and construction sites in Delhi. These creches were assisted under the Scheme of the Department of Social Welfare, Government of India, to assist children of working and ailing mothers whose total monthly family income did not exceed Rs 300. Two sets of data are used: survey data on 23 creches, 381 mothers and 448 children; to complement this survey type of information, an intensive study was made of a random sample of 7 creches run by 5 voluntary organisations with a total of 125 mothers and 119 children.

The actual structure in which the creches functions varies greatly from a shack to a *pucca* building. The creches run by one organisation were housed in a DDA building, a community centre of NDMC and a private house. Four organisations were in private houses. There was one creche in a rented building and another in the servants' quarters. One organisation was given land by the villagers and the building for the creche was financed by the Social Welfare Board. On the construction sites the contractors are required by the Contract/Labour Regulation and Abolition Act 1970 to provide two rooms for a creche, allowing 20 sq. ft of floor area per child The creche has to be located within 15 metres of the building site if 20 or more women are employed as construction labourers.

nvironmen t

Those involved in child care emphasise the importance of spaciousness and proper ventilation and cleanliness of the environment

---

Dr Alfred de Souza is Editor of *Social Action* and Director of Research and Publication, Indian Social Institute, New Delhi. This paper is based on a Report prepared for the Department of Social Welfare, Government of India, 1979 (mimeo). The responsibility for the views expressed is entirely that of the author and not of the Department of Social Welfare. I would like to thank Ms M. Rallia Ram, Ms C. Deepika, Ms Mohini Balchandani and Ms Neerja Arora for their research assistance and Ms Loretta Saldanha and Ms Aleyamma Mathews for their help in preparing the manuscript. I am also grateful to Dr Stan D'Souza for valuable suggestions and support.

for the development of the child. However, the creches we studied were located in drab physical environments with inadequate ventilation and a large number of children was packed into a very small space. In the summer it becomes oppressively hot in the creche. The size of most of the creches was 8′×10′ with only one creche in a resettlement area being 12′×14′. This larger space was shared by creche and *balwadi* children but the two groups of children were not separated by any kind of partition. With one exception, all the other creches operated in conditions of congestion. One creche, for instance, functioned in a room 10′×10′ which had to accommodate 6 cots and creche and *balwadi* children—a total of 27 children which at times might reach as high as 50 children. In some creches there was no lavatory and excreta was dumped near the creche. In several creches the children were troubled by mosquitoes and flies; in its annual report, one of the organisations identified sanitation as one of the major problems of the environment. In many of the creches there was no space for either indoor play or outdoor activities and, even when the space outside the creche was available, it was not used because of the lack of protection. In one creche which was very congested, children could only play in the lane.

We must distinguish between two aspects of human environment both of which are necessary for the development of young children: the physical environment such as light, temperature, brightly painted walls and noise to which children are sensitive; there is also the psychosocial environment which is linked to the physical surroundings but is distinct from them. The psychosocial enviroment is created for the children by the tone of voice used by the adults, the gentle touch of creche teachers and helpers and the behaviour of the peer-group. For example, young children tend to affect each other by crying.[1] There may be a tendency of government programme designers and social welfare workers in voluntary organisations to be attentive to the physical environment and to neglect the equally important psychosocial environment that is so necessary for the development of young children. This aspect will be discussed more in detail later in this paper.

In creches organised for children of middle income groups, the physical environment is given great importance in terms of floor space, colourfully decorated walls, ventilation for fresh air and sun and, whenever possible, a garden. By these standards the physical environments of the creches studied were severely handicapped. The sponsoring organisations could choose the location of the creches but were unable for financial reasons, to select the type of structure they

1. Maria Ziemska, *Early Child Care in Poland* (London: Gordon and Breach, 1978), p. 70.

would like. Though this may explain the poor physical environment of the creche, it would seem that the type of structures used for the creches is an expression of a particular conceptualisation of the creche in which custodial care emphasised rather than the psychosocial environment so necessary for the physical, mental and emotional development of the young children.

Location

Were the creches conveniently located for the working mothers? The table 1 shows that 93 per cent of the mothers had to walk a maximum of 30 minutes to leave their children in the creche, 73 per cent of them needing about 5 minutes, 15.2 per cent 6-10 minutes and 4.2 per cent 11-20 minutes. Three mothers had to take an hour's walk to reach the creche. While the creches were conveniently situated, so too was the place of work, being within easy walking distance for the working mothers. Again, a majority of the mothers could reach their place of work after delivering the child at the creche in less than half an hour. Six mothers who needed 1-2 hours to reach the place of work from the creche did so partly by bus, and by walking.

Table 1: Walking Distance from Home to Creche and from Creche to Workplace for Working Mothers (N=381)

Distance in Minutes	Home to Creche		Creche to Workplace	
	No	Per cent	No	Per cent
Housewives	128	33.6	—	—
1—5	280	73.5	116	30.4
6—10	58	15.2	24	6.3
11—20	16	4.2	24	6.3
21—30	12	3.1	31	8.2
31—40	3	0.8	6	1.6
41—50	1	0.3	13	3.4
51—60	3	0.8	26	6.6
1—2 hrs	—	—	6	1.6
NA	8	2.0	8	2.0

Working hours

The Scheme requires creches which receive assistance to remain open from 8.30 a m. to 5 p.m. In three creches run by one organisation, the working time was 8.30 a.m. to 4.30 p.m., though the working time of the mothers whose children were in these creches was from 8.30 a.m. to 5 p.m. In one of the creches the official timing was 8.30 a.m. to 3.30 p.m., but the children were allowed to

go home between 11.30 a.m—12 p.m. In the creche run by another organisation. the timings were 8.30 a.m. to 12.30 p m. The variation of the timings was not altogether arbitrary since the creches run by one of the organisations were set up on a part-time basis, whereas in another case the closing time of the creche was related to the occupation of a majority of the mothers (sweepers) whose working day ended at 3.30 p.m. In one of these creches, mothers were pressured to take away their infants after breast-feeding them between 12.30-1.00 p.m. In an ideal situation the working hours of the creche should correspond to those of the working mother. This is in fact stipulated in the Contract/Labour Regulation and Abolition Act 1970 for working mothers on construction sites. But this was not so and some of the mothers whose work day finished at 5.00 p.m. had to hurry to the creche by 4.30 p.m. to pick up their children and return with them to the workplace. Some children were sent home at the closing time with older children, particularly if they were living close-by. When the mothers (N=125) participating in the intensive study were asked for suggestions only 4 (4.80 per cent) wanted the creche closing time to be extended.

Table 2: Creche Utilisation by Children: Number of Days Per Week (N=448)

No. of Days Per Week Worked by Mothers	Days Per Week Spent by Children in the Creche				
	3 days	4 days	5 days	6 days	Total
	No	No	No	No	No
Housewives	—	1	—	145	146
	(—)	(0.2)	(—)	(32.4)	(32.6)
2 days per week	—	—	—	5	5
	(—)	(—)	(—)	(1.1)	(1.1)
3 days per week	—	—	—	2	2
	(—)	(—)	(—)	(0.4)	(0.4)
4 days per week	—	1	—	13	14
	(—)	(0 2)	(—)	(2.9)	(3.1)
5 days per week	—	1	—	16	17
	(—)	(0.2)	(—)	(3.5)	(3.8)
6 days per week	1	—	1	86	88
	(0.2)	(—)	(0.2)	(19.2)	(19.6)
7 days per week	—	1	1	174	176
	(—)	(0.2)	(0.2)	(38.8)	(39.3)
Total	1	4	2	441	448
	(0.2)	(0.9)	(0.4)	(98.5)	(100.0)

Significant at $p < .05$; percentages in brackets.

Creche utilisation

Tables 2 and 3 present data on the utilisation pattern of the creches in terms of days per week and hours per day in relation to the number of days and hours worked by the mothers. The data show that the number of days per week worked by the mother had no relation to the number of days the child was placed in the creche. Thus, for instance, housewives used the creche 6 days a week and this was also done by mothers who worked seven days a week. Mothers who worked 2-5 days a week kept their children in the creche for 6 days a week. On the other hand, 174 (38.8 per cent) mothers who worked 7 days a week could use the creche for only 6 days, thus having to make other arrangements for the care of their young children for 1 day in a week. The housewives may not be wage earners but they are engaged in a variety of unpaid work (e.g. grass-cutting, collecting firewood) which they would not be able to do had they to take their children along. In the creche run by one of the organisations in a slum resettlement area, the children of 11 out of 22 working mothers who were employed for 20-26 days in a month also sent their children to the creche for 6 days. At construction sites 10 mothers worked for 30 days in a month and their children attended the creche for 6 days; another three mothers who worked for about 21 days in the month also sent their children to the creche for 6 days a week. If a child is absent for more than a day, the creche staff visit the home to inquire about the child.

Another index of the utilisation of the creche is provided by Table 3 which shows that, largely because of the lack of uniformity in the creche timings the length of time the child spent in the creche also varied, 16.8 per cent of the children remaining in the creche for 2-4 hours, 46.5 per cent for 5-6 hours and 36.6 per cent 7-8 hours. It will be seen that, including houswives, the number of hours the child remained in the creche was broadly related to the number of hours the mother was working, though a few mothers whose children spent 8 hours in the creche were working 9-13 hours per day. It would seem from these data that working mothers in the urban labour force are enabled to maintain their role as wage earners because of the facilities the creche makes available.

Equipment

In order that creches may function effectively, the Scheme provides a non-recurring grant for equipment such as cupboards, cooking utensils, feeding bottles etc. We will here report on the kind of equipment that was available in the creches we studied. Table 4 presents an inventory of the equipment available in 7 creches which

Table 3: Creche Utilisation by Children (N=448) : Number of Hours Per Day

Hours Per Day Worked by Mothers	Hours Per Day Spent by Children in the Creche								
	2 hrs	3 hrs	4 hrs	5 hrs	6 hrs	7 hrs	8 hrs	9 hrs	Total
	%	%	%	%	%	%	%	%	%
Housewives	0.2	1.8	9.4	11.6	6.0	0.9	2.0	—	31.9
1 hr	—	—	0 2	—	—	—	—	—	0.2
2 hrs	—	0.2	—	0.4	—	—	—	—	0.7
3 hrs	—	0.2	—	1 1	0.4	—	0.4	—	2.2
4 hrs	—	0.4	0 9	0 9	0.7	0.2	—	—	3.1
5 hrs	—	—	0.4	2.9	0.7	—	0.2	—	4.2
6 hrs	—	—	0 7	2 9	2 2	—	1.1	—	6.9
7 hrs	—	—	0 2	0.4	0.9	0.2	0.2	—	2.0
8 hrs	0.2	—	0.9	1.1	11.8	2 2	15.0	—	31.3
9 hrs	—	—	0 4	—	1.8	3.6	7.6	0.2	13 6
10 hrs	0.2	—	0.2	0.2	0.2	—	1.6	—	2.5
11 hrs	—	—	—	—	—	—	—	—	—
12 hrs	—	—	—	—	—	—	0.7	—	0.7
13 hrs	—	—	—	—	—	—	0.7	—	0.7

Significant at $p < .05$

were managed by five voluntary organisations. The creches seem to lack equipment which one would consider basic for any form of institutionalised early child care. For example, the creches were poorly stocked with play equipment, such as toys, blocks, games and also outdoor play equipment such as swings and slides and jungle gyms. Five of the 7 creches we studied did not have outdoor play equipment at all; toys and blocks, available to some extent in all the creches were not used. A common fear was that the toys would be damaged or lost. One of the organisations, which placed great emphasis on play activity for the psychomotor and emotional development of the children, has arrangements to make low cost toys.

Table 4: Inventory of Equipment in the Creches (Intensive Study)

	1	2	3	4	5	6	7
Cots	4	10	—	—	1	3	1
Cradles	2	5	—	—	6	10	6
Mattresses	—	—	—	—	1	4	—
Broom	1	1	1	2	1	1	1
Play Equipment	—	*	**	***	A	A	A
Mirror	1	—	—	—	1	1	1
Table	—	—	1	2	1	1	—
Plastic Sheets	—	12	2	—	4	6	6
Feeding bottles	—	3	—	—	6+	@	4
Painting Mat	—	—	—	—	—	—	—
Sheets	4	15	—	—	10	30	—
Towels	3	3	2	2	40	27	35
Bins	—	1	—	1	1	@	1
Basin	1	2	—	A	2	2	4
Buckets	1	1	2	A	3	3	@
Mugs	1	2	—	A	5+	4	@
Glasses	7	3	12	A	3+	27	4–8
Plates	—	28	—	—	—	—	—
Katoris	11	18	50	A	6+	20	35

* kept locked in
** negligible
*** hardly used by children
+ most of their *kitchen equipment was stolen a few days before our visit*
@ not stated
A have these items but exact number not available

Both the equipment inventory and observation suggest that the role of play activities and toys in the physical and mental development of young children was not recognised by most of the sponsoring organisations or the creche staff. The children from low income families, who lack opportunities to develop within the home because

of cultural deprivation and the lack of a variety of things to play with, need to have compensatory experiences in the creche.[2] Thus if a stimulating environment is to be created in the creche, play activities have to be carefully planned to provide the children with opportunities to learn the manipulation of objects, visual-motor coordination and to interact with other children.[3] There is a real need to improve the play activity in the creches since for a young child play involves a process of both education and development.

In an empirical study of the effect on early child development of socio-economic conditions, child-rearing practices and health and nutritional factors among three ethnic groups—Malay, Chinese and Indian rubber estate labourers in West Malaysia—Colletta and Donohue reported that the children in the creche for Indians were 'passive, dirty . . . mostly sitting quietly on the floor . . .'[4] In this creche there were no games, no toys. During field visits small children were observed in some creches to sit for long periods in silence merely gazing blankly in one direction and not responding to stimuli in the environment. It may be likely that even if these children were presented with toys, this type of listless behaviour would have continued because it is a consequence of malnutrition. Levitsky[5] has pointed out that malnutrition retards congnitive development not so much directly through transformations in the brain as because it causes 'functional isolation' that inhibits the internally motivated curiosity to learn. He points out[6] that 'thus malnutrition early in life may affect cognitive development, not by damaging the brain's capacity to learn, but by producing behaviour incompatible with normal environmental learning.'

Apart from one organisation which had a good supply of towels, the supply of towels in the creches of other organisations was quite insufficient to meet the requirements of hygiene. One organisation had the policy of a separate towel for each child. In another organisation it was stated that separate towels were used but inventory given in Table 4 shows that this was not so and this was also confirmed by observation. Separate towels for the children are necessary to prevent the spread of infections of the skin, eyes and

2. A. Aarons and Hugh Hawes, *Child-to-Child* (London: Macmillan. 1979), p. 10.

3. Maria Ziemska, *op. cit.*, p. 75.

4. N.J. Colletta and N. Donohue, 'The Ecology of Child Development on a Malaysian Rubber Plantation,' *International Child Welfare Review*, 32, (April 1977), pp. 24-26.

5. David Levitsky, 'Malnutrition and Brains,' *Development Digest*, XVI (No. 2, April 1978), pp. 3-9.

6. *Ibid.*, p. 7.

the intestinal diseases. It will also be seen from the inventory (Table 4) that the availability of sheets was limited. In one creche the sheets were changed every other day; in four creches whenever they are soiled by the children. In two creches no sheets were used because there are no cots and cradles. Sometimes the children were observed to be lying on soiled sheets for a long time nor were the sheets changed but merely left to dry.

Four creches run by two organisations had medicine cabinets containing multivitamins, tonics, antibiotics, skin ointment, Dettol, ear drops, Burnol, bandages etc. In one creche there were only antiseptic lotions in the cabinet, medicines being bought whenever required. In two creches run by two different organisations, there were no medicines.

Six of the seven creches had kitchens in a room adjoining the creches; one creche did not have a kitchen of its own but the cooking was done in the kitchen of the family that had given two rooms in which the creche was run.

The inventory of the equipment of the creches tends to confirm the view that the creche is conceived primarily in terms of custodial care for the convenience of the mother. In this conception of the creche, the development of the child, however much it is emphasised verbally, does in fact become operationally secondary. The inadequacy of the creche equipment tends to be justified by references to the lack of funding; yet it would seem that the need to create an environment appropriate for the development of young children from culturally deprived homes is not recognised in practice.

It is clear that, unlike creches organised for middle income women workers, those for the children of culturally deprived groups must function as institutionalised compensatory mechanisms so that deprived of opportunities for growth within the home environment, the child will find them in the creche through the combination of good nutrition, stimulating play activity and the loving acceptance of trained attendants.

Nutrition

A high proportion of the children were suffering from various degrees of malnutrition and this was particularly so among the children whose mothers were working as construction labourers. We also pointed out that if these underprivileged children were to develop they would need nutritious food particularly at the crucial stages of their growth. It is clear that, given the conditions of poverty in which the mothers of these children live, the only hope of receiving an adequate diet is from institutional sources of which the creche is the best

known organised form outside the family. In this section we will present the data on the different types of food given to the children in the creches.

Table 5 indicates the types of food which were given to the children in the different creches It will be seen that the most common food given was dalia/kitchri (8.86 per cent); murmure and chana (58.6 per cent); kheer/halwa (34.7 per cent), roti, puris, pakoras (26 per cent). Fruits were given to very few children (15 per cent); dalia, kichri (pulse and rice) and beaten rice were given to most of the children.

The different organisations had prepared nutrition charts in order to provide the children with a balanced diet. Thus, according to the nutrition chart in one creche, each child was to be given milk, dalia, murmure, kitchri and soya grit products. Undernourished babies were to be put on a special diet. In another creche the nutrition chart of the children consisted of dalia/kitchri to be given daily, vegetables occasionally and fruits once a week. Milk was also given to the children but this was left at the creche by the mothers if they could afford it. In another creche the nutrition chart showed that the children were to be given dalia, milk, moong dal, peanuts and sooji (semolina halwa). In two creches the food chart was restricted to just kitchri.

About 91 per cent of the children received no fresh milk and no powdered milk was given to 51.3 per cent. Only 39 children got fresh milk and this was brought by their mothers to the creche. Twelve children (2 7 per cent) received 50-100 gms of fresh milk of whom 4 (0.9 per cent) were 7-12 months of age; 6 (1.3 per cent) 1-2 years and 2 (0.4 per cent) 2-3 years Of eight (1 8 per cent) children who received 101-200 gms of fresh milk, 1 (0.2 per cent) was 7-12 months of age, 4 (0.9 per cent) 1-2 years, 2 (0.4 per cent) 2-3 years and 1 (0.2 per cent) 3-4 years. Powdered milk was given to 42.7 per cent of the children of whom 175 (39.2 per cent) received from 50-400 gms. Of the children who received powdered milk, the majority were given between 101-400 gms daily, 153 (11.9 per cent) between 101-200 gms, 29 (6.5 per cent) between 201-300 gms and 59 (13.2 per cent) 301-400 gms. The data show that milk, which should be an important item in the diet of preschool children in the age group 0-5, was available to very few children. In some creches it was found that some mothers opposed the giving of powdered milk to their children since it was thought that this gave the children diarrhoea.

When the mothers were asked their views about the food given to their children in the creches, only a very few mothers said that they were not satisfied with the amount of milk or other foods (e.g.,

Table 5: Types of Food Given to the Children By Age (N=447)

Food Items		1-6 mths	7-12 mths	1-2 yrs	2-3 yrs	3-4 yrs	4-5 yrs	5 yrs and above	Total
		%	%	%	%	%	%	%	%
Dalia/ Kitchri/ Beaten rice	Given	2.5	8.7	26.8	32.9	11.9	3 8	0.2	86.8
	Not Given	4.3	3.4	2 5	2 0	0,9	0.2	—	13 2
Murmure/ Chanas	Given	0.9	5.1	17.9	25.1	8.1	1.3	0.2	58.6
	Not given	5.8	6.9	11.4	9.8	4.7	2.7	—	41.4
Soyabean/ Mathi	Given	0.4	2.5	7.4	11.0	2.2	0 7	—	24.2
	Not given	6.3	9.6	21.9	23 9	10 5	3 4	0.2	75.8
Kheer/ Halwa	Given	0.4	1.8	10.3	15.0	5 8	1.1	0.2	34.7
	Not given	6.3	10.3	19.0	19.9	6.9	2.9	—	65.3
Biscuits	Given	0.4	2.0	11.9	13 6	5.6	0.9	0.2	34.7
	Not given	6 3	10.1	17.4	21.3	7.2	3.1	—	65.3
Fruits	Given	—	0.9	4.5	5.8	3.1	0.7	—	15.0
	Not Given	6.7	11.2	24.8	29.1	9.6	3.4	0.2	85.0
Roti/Puris/ Pakoras	Given	0.2	0,9	5.6	13.4	4.9	0.7	0.2	26.0
	Not given	6.5	11.2	23.7	21.5	7.8	3.4	—	74.0

kitchri, dalia and fruits) given. A balanced diet for preschool children[7] should include a mix of *energy foods* such as wheat, rice, maize, sugar, root vegetables such as tapioca, sweets like sugar and jaggery and fats and oils. There should also be *growth foods* such as milk, milk products, pulses, groundnuts, soyabeans, eggs, meat, fish and nuts. There should also be *health promoting foods*, such as all kinds of vegetables and fruits.

Balanced Diet for Preschool Children 1-3 years (daily allowance)

	Vegetarian	Non-Vegetarian
	(gms)	(gms)
Cereals	150	150
Pulses	50	40
Green leafy vegetables	50	50
Other vegetables		
Roots and tubers	30	30
Fruits	50	50
Milk	300	200
Fats & oils	20	20
Meat, fish and eggs		30
Sugar & Jaggery	30	30

Source: Lessons in Nutrition and Health for Mothers (New Delhi: CRS, 1978), p. 18.

Compared with the standards required for adequate nutrition of preschool children, the quantity and quality of the food provided in the creches seems insufficient and this is particulary so with respect to *growth foods* which are indispensable for the development of the young child.

In the creches, largely because of the cost factor, children got a negligible amount of growth foods, especially milk, and most of the foods served, such as dalia and kitchri, were energy giving. Only in three creches were children given milk daily, but in other creches it was observed that, unless the mothers brought fresh milk, even powered milk was not given daily. The diet of small children should be marked by variety of foods in sufficient quantity but this, too, was lacking in the creches. It has been pointed out[8] that even 'a modest increase in cereal and legume consumption can significantly reduce the burden of protein calorie malnutrition.'

7. CRS, *Lessons in Nutrition and Health for Mothers* (New Delhi: Catholic Relief Services, 1978), p. 18.

8. UNICEF, *Strategy for Children* (New York: UNICEF, 1976), p. 11.

Meal timings

The meal timings varied among the creches. In three creches run by one organisation the children received milk at 9.30 a.m., multi-vitamin drops at 10 a.m., *murmure/channa* at 11 a m., *kitchri/dalia* at 12.30 a.m. and milk at 3.30 p.m. In a creche run by a second organisation the children received kitchri/dalia at noon and those who were below one year were given milk. The children received nothing in the morning till the lunch feed. In a creche run by a third organisation biscuits were given at 12.30 p.m. and kitchri at 1.30 p.m. From 8 p.m. to 12.30 p.m. nothing was given; milk was given to the children whose mothers had left some at the creche. In a creche run by a fourth organisation the children ate what they got from home between 8.30-9 a.m.; between 10 a.m. and 10.30 a.m. one type of food is given each day, e.g kitchri, potato-vegetable mix, dalia etc. After these meals the children were given nothing till they left the creche between 11.30 a.m.—12 noon. In another creche the children got nothing at all till 10.30 a.m. when they were served dalia/kitchri. The supervisor of this organisation, however, reported that in other creches run by the organisation children were given milk left by their mothers at 10-11 a.m., dalia at 12 noon and biscuits at 3 p.m. The feeding timings in the creches are separated by long periods without food, though it is necessary that young children should have frequent feeds preferably after two-hour intervals.[9]

One would have expected that, because the creches were catering to the needs of underprivileged children suffering from various degrees of malnutrition, the diet in the creches would not be merely 'supplementary' in quantity but that an effort would be made to provide balanced nutrition with respect to protein calorie requirements. Apart from two organisations which were especially concerned with the quality and quantity of the diet provided to the children, the other organisations adopted an attitude of 'resignation' to the inadequate diet they were able to provide the children.

Supplementary nutrition

The gloomy picture of food consumption that emerges from the data points to the need of a reconsideration of the role of 'supplementary' nutrition since the children in the creche for the most part received no other food except what they were given there. Balanced nutrition for preschool children 0-5 years should be part of an overall strategy of preventive health care of which the main components would be adequate nutritious food, environmental sanitation and

9. Shanti Ghosh, *The Feeding and Care of Infants and Young Children* (New Delhi: Voluntary Health Association of India, 1977), p. 13; CRS, *op. cit.*, p. 43.

immunisation. At the level of poverty and malnutrition in which the creche children live, particularly those from families on construction sites, it is quite unrealistic to consider the food given to them in the creche as having only a supplementary character. Once again, it has to be pointed out that only in a conceptualisation of the creche as primarily designed for the convenience of the mother can nutrition be assigned a supplementary function.

A major problem involved in the procurement of food was transport since in three organisations food had to be obtained from ration shops. One organisation obtained food from the hospital to which it was attached. Here the children of ailing mothers were given fresh DMS (Delhi Milk Scheme) milk. Another organisation purchased food centrally and the different creches had to indent for for their quota. Here again, since transport facilities were limited, the distribution of provisions to the different creches was considered a serious problem. One of the better situated organisations had obtained a donation of milk powder, jaggery and bulgar wheat from an international organisation.

Infant mortality rates, which tend to be high in less developed countries, are related to a great extent to malnutrition, particularly after the first six months of life when breast-feeding is inadequate to meet the nutritional needs of the child. Chandrasekhar[10] has pointed out that 'in India, among the poor sections of the population, malnutrition of the infant is more the rule than the exception from the sixth to the twelfth month . . . if the average baby is to grow and develop, some supplementary feeding is absoultely necessary from the sixth month, if not a little earlier.' Malnutrition in young children may be the result of cultural taboos regarding weaning foods.[11] Mathews[12] reporting on health and culture in Tamil Nadu states that 'probably the most harmful cultural practice with regard to food is that of not giving supplementary food to the child until it is about one year old.' On the other hand, malnutrition in young children may be quite simply the result of poverty which makes it dfficult for parents to procure even cheap weaning foods.[13]

The incidence of malnutrition in young children in the age group 1-5 years should be the focus of special attention in the creche, and organised intervention should take the form of providing these

10. S. Chandrasekhar, *Infant Mortality, Population Growth and Family Planning in India* (London: Allen & Unwin, 1972), p. 228.

11. UNICEF, *op. cit.*, p. 15.

12. C.M.E. Matthews, 'Health and Village Culture in Tamil Nadu,' *Social Action*, 28 (n. 3, 1978), pp. 251-266

13. Alfred de Souza, 'National Planning to Meet the Minimum Needs of the Family,' in P.N. Luthra, *Family as a Unit of Welfare in National Planning* (New Delhi: Indian Council of Social Science Research, 1977), p. 160.

children who are at risk with a full, not supplementary, nutritious diet.

Health

In two of the creches there were no health charts though it was reported by one of the organisations involved that health charts for the children were kept in its creches. There are supposed to be regular checks on the children and the Scheme requires weekly visits of a doctor who is paid at the rate of Rs 25 per visit. We found that doctors visit regularly four creches run by two organisations but in the other three creches sponsored by three organisations, the doctors' visits were irregular and in one creche the doctor had not been seen for several months. According to the Administrators of the organisations, it is difficult to get doctors to come the creche because of the long distance and the low remuneration. Student doctors could be available but they would require transport.

When the children are sick, in two creches they are sent home; in five creches run by three organisations, minor ailments are treated by the creche staff or the child is taken to the dispensary or hospital. Mothers are reluctant to take the child to the hospital themselves, but are willing to do so if the creche helper accompanies them. They much preferred going to *Hakims* and other traditional healers who were known to them. The reason for this is that there is a communication gap between the doctors and these illiterate women.[14] If, therefore, the children are attended by doctors in the creche this will save the mothers the cost of transport and time from their job and also be more effective because of better communication between the doctor and the creche staff.

In the creches, there appears to be too great a dependence on the doctor and not enough reliance on a preventive approach which would focus on the aetiology of ill-health—environmental sanitation, hygiene, malnutrition and poverty. The needs of the underprivileged young child are preferably met by a variety of personnel and institutions working in coordination—the mother in the home, helpers and lady health visitor in the creche, doctors in the hospital. Some of the health needs of the child can be met in the home situation by enabling the mother to bring about a change in its environment. This can be done by using the techniques of non-formal education to advise the mother of effective ways of improving hygiene, nutrition and child care. Among the important change in the concept of community health work is a new perception of the role of paramedical personnel, for example, lady health visitors. Trained paramedical workers

14. C.M.E. Matthews, *op. cit.*, p. 259.

are known to perform many of the services for which the intervention of a doctor is currently sought.[15] The focus of this concept of preventive health care through a network of interrelated agencies—home, creche, hospital—is on the education of the mother, the use of trained paramedical personnel for the diagnosis and treatment of common children's ailments, and referral to the doctor and hospital only when there is a real need. The use of trained paramedical personnel would not only reduce the cost of health care but also be more effective in the health education of the mothers. When dealing with mothers who are illiterate and poor, understanding of their cultural environment is important for effective communication. Unlike the doctor who functions mostly as a healer when dealing with the poor, the paramedical personnel would be able to function as both healer and educator.[16]

Immunisation

The approach of health, especially of underprivileged children should be primarily preventive and not curative. Thus one would expect that the health care in the creches would provide the children with systematic immunisation against diphtheria, whooping cough, smallpox, measles, typhoid, polio, etc. Only one creche had a systematic programme for the immunisation of the children; a lady doctor came every three months to immunise the children against diphtheria, whooping cough and tetanus. In the other creches there were no regular immunisation procedures, except when municipal or dispensary personnel contacted the creches when there was the threat of an epidemic.

Since mothers who are illiterate may be opposed to the vaccination of their young children, this important preventive measure should become a routine procedure in the creches. This will also provide a good opportunity for the non-formal education of the mothers in health care. In one creche we were told that some mothers were opposed to vaccination but changed their minds after meeting with the creche staff who explained the importance of vaccination for the health and survival of their children.

Meetings with creche staff

The mothers as a group are supposed to meet the creche staff either monthly or weekly. Table 6 shows the number of mothers who

15. Sara Kaithathera, 'Integrated Community Health,' *Social Action* 24 (n. 1, Jan-March 1974), pp. 67-71.

16. C.M.E. Matthews, *op. cit.*; P.M. Strong & A.G. Davis, 'Roles, Role Formats and Medical Encounters: A Cross-Cultural Analysis of Staff/Client Relationships in Children's Clinics,' *The Sociological Review*, 25 (n. 4, November 1977), pp. 775-800.

attendend the meetings in seven creches sponsored by five organisations. It will be seen that, apart from three creches, the attendance of the mothers at these meetings were irregular or they simply did not come. This behaviour of the mothers was attributed by the creche personnel to the lack of time, apathy and ignorance of these mothers. In the three creches in which the attendance was above average, this could be reasonably attributed to the organisational ability of the staff, the high level of their involvement with the mothers and the important fact that the mothers found these meetings profitable. It must be noted, however, that even if the mothers did not meet as a group with the staff of the creche, they could do so individually seeking advice when necessary.

Table 6: Number of Mothers Attending/not Attending Staff/Mothers' Meeting (N=125)

	1	2	3	4	5	6	7	Total
	No	No	No	No	No	No	No	No
Do not attend	10	10	15	26	7	4	2	74
	(8.0)	(8.0)	(12.0)	(20 8)	(5.6)	(3.2)	(1.6)	(59.2)
Monthly	—	—	—	1	1	8	4	14
	(—)	(—)	(—)	(0 8)	(0.8)	(6.4)	(3.2)	(11.2)
Weekly	—	—	1	1	1	1	—	4
	(—)	(—)	(0.8)	(0 8)	(0.8)	(0.8)	(—)	(3.2)
Irregular	—	1	6	8	4	2	12	33
	(—)	(0.8)	(4.8)	(6.4)	(3.2)	(1.6)	(9.6)	(26.4)
Total	10	11	22	36	13	15	18	125
	(8.0)	(8.8)	(17 6)	(28.8)	(10.4)	(12.0)	(14.4)	(100.0)

We pointed out earlier that, if the staff were appropriately trained, this kind of meeting with the mothers could function as an important opportunity for non-formal education in hygiene, the selection and preparation of food and health care.[17] A number of mothers consulted the staff on hygiene, feeding practices and health, and, when advice was given, it was generally accepted not only with respect to hygiene (40 per cent) but also food habits (38 per cent) and health care (34 per cent) Thus it would seem that urban women of rural origin even from the lowest income groups are relatively open to change in hygiene, food habits and health care—areas which are usually controlled by traditional norms. However, it should also be noted that of all the women participating in the intensive study (N=125), 57

17. M.M. Rajendra, 'Reaching the Deprived Child,' *India International Centre Quarterly*, 6 (n. 1, January 1979) pp. 60-65.

(49.6 per cent) were not given any advice on hygiene, 56 (45.6 per cent) on food and 63 (50.4 per cent) on health. One reason for this failure to exploit a valuable situation for non-formal education is that, apart from two organisations which had facilities of in-service training of the creche staff, a high proportion of the helpers were unable to advise the mothers, nor were they sufficiently involved to want to take the trouble to become competent. There is, of course, the other fact that, in the three creches run by three organisations, there were no meetings with the mothers, though the mothers individually could always meet the creche staff. This information shows that, if the mothers are to make better use of the services which the creche can provide, their involvement has to be promoted by the staff and maintained by the relevance of their advice on hygiene, food and health care to the concrete situation of these poor and largely illiterate mothers.

Attitudes of mothers

We attempted to find out how the mothers evaluated the facilities and services of the creches and to ask them for suggestions that would make the existing services more beneficial to their children. On a variety of topics such as creche timings, food, health care, environment, water and clothing, the response of the mothers was extremely poor. Most of the mothers (N=125) had no suggestions for the improvement of the creches. Three creches managed by one organisation were open for 8 hours, but out of 46 mothers, 19 worked for 9 hours, 3 for 10 hours and 2 for 12 hours; twenty-three of these mothers worked overtime Yet, only 3 mothers suggested that the creche timings should be extended. At the same time 95 (76 per cent) of the mothers reported that they were satisfied with the performance of the creche and only 11 (8.8 per cent) were dissatisfied with the physical facilities, health care, nutrition, and personnel in that order.

How is this overwhelming endorsement by the mothers of the performance of the creches to be explained? A large percentage of the mothers were not in a position to assess the facilities and performance of the creches because of their ignorance of health care and nutrition. They could spend very little time in the creches and thus were unaware of what was going on in them. These mothers who come from the lowest income groups tend to have rather low expectations, and anything that is offered is accepted because they have few or no alternatives. The administrator of one of the organisations reported that the mothers, who were mostly sweepers, were grateful that there was a supervised place for their children.

For all these reasons, the positive evaluation of the mothers of the facilities and performance of the creches cannot be taken as an

indication of the quality of the services to young children in the creches meant for the urban poor because of the constraints of lack of funds, untrained personnel and mostly illiterate mothers. There are creches which, in spite of these difficulties, strive to maintain high standards particularly in health care and nutrition. Nevertheless, it must be pointed out that a large number of the creches we studied may provide the working mothers and housewives with institutionalised custodial care, but they can hardly be said to be oriented to the physical, emotional and mental development of the children.

Summary and conclusion

To sum up, the physical environment of the creches for underprivileged children is characterised by congestion, poor ventilation and the lack of facilities required for environmental protection; the psychosocial environment, too, is rather neglected and this can be seen from the inadequate play equipment and the lack of organised activities conducive to the development of the physical, social and mental health of the children. The quality of the environment of the creches suggests a concept of child services in which the emphasis is on custodial care for the convenience of the mother rather than on the developmental needs of the child.

The nutrition standards maintained in the creches fail to take into account the needs of underprivileged children, a high proportion of whom are suffering from severe malnutrition.[18] The incidence of malnutrition is particularly high in the age group 1-3 years, and this may be due to the cultural beliefs and practices of the mothers regarding supplementary foods for very young children; it may also be due to the conditions of poverty which make it impossible for parents to provide their children with a balanced diet. The creches can play a crucial role in improving the nutritional status of these children. This can be done in two interrelated ways: first, the quantity and quality of the food given to the children has to be improved, and this can be done by providing them with more 'growth' and 'health promoting' foods; second, the major points of interaction between the mothers and the creche staff, for instance the weekly or monthly meetings, should be converted into occasions for non-formal education to inform the mothers of practical ways of improving hygiene, nutrition and the environment within the constraints of their actual life situation.

This study shows that mothers of rural origin who have settled

18. Davidson R. Gwatkin, *Health and Nutrition in India* (New Delhi: The Ford Foundation, 1974), p. 17; C. Gopalan, 'Some aspects of Nutrition in India,' in Ashish Bose *et al.* (ed.), *Population in India's Development 1947-2000* (New Delhi: Vikas, 1974), p. 104.

in Delhi are receptive to new norms and practices in health, nutrition and hygiene. The data on the meetings of the mothers with the creche helpers, showed that these largely illiterate mothers were disposed to follow the advice they were given. This receptivity to new norms and practices in health, nutrition, hygiene and child care needs to be studied more in detail with reference to different regional backgrounds. Another aspect of this question is the relationship between the doctor and the mother in the context of communication regarding health problems. This study has shown that doctors relate to mothers, who come to consult them about the health of their children, as healers and not as educators. It should be a policy to replace doctors as much as possibly by a paramedical worker, such as a Lady Health Visitor, who would be able to function in relation to the creche helpers and the mothers as healers and informal educators. The creche should be seen as an opportunity for extensive non-formal education in the most important areas of health, nutrition, hygiene and sanitation.

Neglected Children and the Law

Alice Jacob

The early part of the nineteenth century saw no substantial body of law relating to the liability, treatment or welfare of children. Under the common law principle of equality before the law, everyone was liable to ordinary proceedings in the ordinary courts and hence, no special provision was made for children. The principles of criminal liability were expressed in terms of the knowledge of right and wrong. This was applied to children on the basis that a child under the age of seven could not commit an offence and a child between seven and twelve could not commit an offence unless he had sufficient maturity of understanding to judge the nature and consequences of his conduct. In this way, the age of a child gave him an exemption from liability. If the child did not come within the exemption, his liability to conviction was the same as that of an adult. His exemption from criminal liability would lead to his acquittal and the courts could not take further steps however much the child might be in need of care or protection. Even in the matter of punishment, it was fixed by law according to the nature of offence; the age of the offender had no relevance in determining the quantum of punishment.

The common law principles needed radical changes in the light of the social conditions following the Industrial Revolution. There was an increase in young offenders and children going wayward who needed to be dealt with by institutions distinct and separate from the ordinary courts.

Special Courts

In India the Apprentice Act passed in 1850, sought to provide for better treatment of children between ten and eighteen years of age. Then came the Reformatory Schools Act, 1876, modified in 1897, which provided for special courts which could order three to seven years' detention and training instead of imprisonment. The first move to enact a Children's Act came from the Indian Jails Committee (1919-1920) which recommended special treatment for young offenders and non-offenders to reform and rehabilitate them.

Dr Alice Jacob is Research Professor, Indian Law Institute, New Delhi.

It suggested, *inter alia*, the setting up of children's courts to hear all cases against children and young offenders, the return of a child offender to his parents if the conditions at home warranted such a return; and that the commitment of children and young persons to prison should be illegal. The Children Acts of the various states in the 1920s were a sequel to the Committee's recommendations. These Acts were enacted to provide for (i) the custody, trial, maintenance, welfare, education and punishment of young offenders; and (ii) for the protection of children and young persons who are neglected, destitute or in moral danger or in need care and protection. In 1960 Parliament enacted the Children Act setting up Child Welfare Boards to deal with the problems of neglected children. For the first time two separate institutions were created—Child Welfare Boards for neglected children and juvenile courts for delinquent children.

What is the role of the Children Acts vis-a-vis neglected children? The major concern of the legislation is, *inter alia*, the treatment and rehabilitation of neglected children.

Legal intervention

Ideally it is the primary responsibility of parents to protect their children from various harm and to ensure that they receive varied benefits. Most certainly, parents should be required to feed and clothe their children. They also must comply with laws on child education and labour. In addition to these minimum requirements, parents should provide love, affection and a stable home environment to ensure their children's physical, mental, emotional and social development. Each child's home should provide him or her with the best available opportunity to fulfil his potential in society as a civilized human being. In this connection, some feel that a children's bill of rights be enacted to ensure each child the right to grow up in a healthy home. In other words, a child has a moral right and, in addition, should have a legal right to receive parental love and affection, discipline and guidance and to grow up as a mature adult in a favourable home environment.

Can we achieve this ideal condition in the Indian context where the majority of children live in situations of acute poverty and work to contribute to the monthly earnings of the family? Beginnings had been made prior to Independence, and certainly after Independence many child welfare programmes were formulated and implemented through child welfare legislation and various institutions. The state has, under the doctrine of *parens patriae*, a right and an obligation to protect children if their parents are discharging their responsibilities inadequately. But the role of the state in terms

of coercive intervention through laws to protect children has necessarily to be limited, in the context of the well-being of children, to regulate certain objectively determinable behaviour and to channelise the activities of certain categories of children into areas which lead to their proper growth and development.

The legal process set in motion for the protection of children may lead to the curtailment of their individual liberty, though temporarily, and affect parental autonomy. Consequently, the legal intervention of the state, which leads to the temporary removal of children from their homes (parental care), should be kept to the minimum. But, on the other hand, the state should initiate various welfare programmes and give generous financial support to voluntary organisations to improve the living standards of children in their own homes. The reason is that interference in the child's relationship with its parents is painful and the continuity of this relationship is very important to children. Consequently, the removal of a child from the home environment may cause serious psychological damage—damage more serious than what the legal intervention is supposed to prevent.

Children Acts

In India the legal support for 'neglected' children is found in the Central Children Act, 1960,[1] applicable to the Union Territories of Delhi, Dadar and Nagar Haveli, Goa, Daman and Diu, Lakshadweep and Pondicherry and the various state Children Acts. As of now, all states except Orissa, Meghalaya, Tripura and Nagaland, have enacted legislation on children. The Children Acts cover only 197 of the 370 districts in the country. The basic premise underlying the Children Acts is the obligation of the state as *parens patriae* to provide protection for children. In fact, the statement of objects and reasons of the Children Bill (Central) reinforces this :

> Children are the most vulnerable group in any population and in need of the greatest social care. On account of their vulnerability and dependence they can be exploited, ill-treated and directed into undesirable channels by anti-social elements in the community. The state has the duty of according proper care and protection to children at all times. . .

The preamble of the Central Children Act, 1960, states that

1. For a detailed analysis of the Central and State Children Acts see Alice Jacob and Kusum, 'Child Welfare,' in *Child and the Law* (Bombay: N.M. Tripathi, 1979) forthcoming; see also Jyotsna Shah, 'Welfare of Children under Indian Law,' in K.D. Gangrade, *Social Legislation in India*, Volume II (Delhi: Concept Publishing Company, 1978), pp. 94-118.

the aim of the legislation *inter alia*, is to provide for the care, protection, maintenance, welfare, traning, education and rehabilitation of 'neglected' and 'delinquent' children. Thus, we see that the Children Acts deal with two distinct categories of children, namely, 'neglected' and 'delinquent' children.

The various Acts do not have a uniform definition of the term 'child.' For instance, the Bombay Children Act, 1948, defines 'child' as a boy or girl who has not attained the age of sixteen years. The Madhya Pradesh and Uttar Pradesh Children Acts prescribe the upper age limit as sixteen years. However, under the Central Children Act a 'child' means a boy who has not attained the age of sixteen years or a girl who has not attained the age of eighteen years. The Central Act, unlike the state Acts, has made a meaningful distinction between boys and girls as regards the upper age limit.

It is the purpose of this paper to examine and reappraise the provisions of the Children Acts relating to 'negelected' children. The Acts also deal with 'delinquent' children who commit criminal offences. Who is a neglected child? Are the statutory standards of 'neglect' too wide to facilitate legal intervention and limit parental autonomy in bringing up children? Since property and neglect are closely correlated in a society like courts, we must ask whether sufficient resources exist to make state inter vention in family affairs useful. The Children Acts (Central as well as State) define the following categories of children as 'neglected':

(i) a child with no parent or guardian or home or settled place of abode;

(ii) a child with no ostensible means of subsistence or is found destitute;

(iii) a child found begging or doing a job which goes against his welfare;

(iv) a child in the care of parent or guardian who due to criminal tendencies, or habitual drinking or madness or disease or cruelty or wickedness or for any other reasons is either unfit to take care or incapable of taking care of the child;

(v) a child who is known to live with a brothel keeper or with a drunkard or is associated with a confirmed criminal;

(vi) a child who takes shelter or lives in a house used for prostitution or who often visits such places;

(vii) a child who is used to intoxicants;

(viii) a child who is not amenable to parental contral or is uncontrollable by any one;

(ix) a child who is grossly overworked or ill-treated by his employer.

The Children Act (Central) provides for the setting up of Child Welfare Boards to deal with the problems of neglected children. The Board is to consist of a chairman and other members, of whom at least one is to be a woman, who have 'special knowledge of child psychology and child welfare.' The Board is to function as a bench of a magistrate and enjoys powers conferred by the Code of Criminal Procedure on a first class magistrate. The Board while holding an enquiry under the Act is required to follow the procedure of the Code of Criminal Procedure for trials in summons cases. Thus, we find that the Boatd exercises quasi-judicial powers in respect of neglected children. Decisions are to be made by a majority. In the absence of such a majority, the opinion of the chairman prevails. The absence of any member does not affect the validity of a decision.[2] Where there is no Board in any area, the powers of the Board are to be exercised by the district magistrate, or sub-divisional magistrate or any first class magistrate. The powers of the Board may be excercised by the Sessions Court and the High Court when the proceeding comes on appeal or revision or otheriswise.

So far Child Welfare Boards have been set up only under the Children Act (Central). The Assam Children Act, 1970, and the Jammu and Kashmir Children Act, 1970, also provide for the establishment of Boards but these Acts have not yet been implemented. The Kerala Act of 1972 has no provision for the establishment of Boards. Under the other State Acts such as Bombay, U.P., East Punjab, Andhra, Saurashtra, Karnataka, Kerala, Tamil Nadu, West Bengal and Madhya Pradesh, the juvenile courts deal with neglected children.

Procedure

The Acts empower any police officer or an authorised person to take charge of neglected children and produce them before the Child Welfare Board or Juvenile Court (where no Boards have been set up) within 24 hours. Further, when any police officer in charge of a police station is informed about the presence of neglected children within his jurisdiction, he is required to record the substance of such information and send a copy of the entry made to the Board, if

2. In a Punjab case, *Shila Bhalla* v. *Bhagwan Dass*, A.I.R. 1965 Punj. 384 involving an order of the Child Welfare Board, it was argued that the Board, order was illegal as it was not signed by all the members of the Board. Rejecting the contention, the High Court of Punjab held that under section 6(2) it was not necessary that all the members of the Board should be present.

he does not take charge of such children. He is required to send the children to observation homes unless they are kept with their parents or guardians. In no case are they to be detained in the police stations or jails. If they are left with their parents or guardians, the police officer is required to report to the Board.

On the receipt of such a report, the Board requires the parents to produce such children and commences the 'neglect' proceedings. As stated already, the proceedings before the Board are intended to be informal. No lawyer is to appear before the Board except with its special permission. In this respect, the Children Acts present a good compromise in that the Board may allow legal representation in a 'neglect' situation which warrants it. This is as it should be. As neglect proceedings may end up in curbing the individual liberty of children, it is imperative that in complicated situations, the children and their parents should get legal help. This question of legal representation was examined in England by the Committee on Children and Young Persons (Ingleby Committee) which favoured it. It observed:

> We do not assert that there is no need for legal representation in Juvenile Courts. On the contrary, there are certainly cases in which the child needs help quite apart from any that his parents and the court can given.[3]

In India, legal representation exists as a mater of right in appellate and revisional proceedings. However, we find that the Acts do not have provision for free legal aid which is essential in 'neglect' proceedings. As emphasised earlier, neglect and poverty have a close correlation and hence, lawyer's help for children should not be dependent on their pecuniary resources. Legal assistance should be provided at state expense.[4]

The proceedings are *in camera* before the Board. Only those permitted by the Board can be present and participate in the enquiry. In the interest and well-being of, and to present a congenial atmosphere to the children, the Board is to be housed in a separate building or room away from the ordinary civil and criminal courts. The Acts ban the publication of the names of the children involved except where the disclosure is in their interest.

Special Institutions

The Children Acts provide for short-term and long-term institutions for the care and rehabilitation of neglected children. The

3. *Report of the Committee on Children and Young Persons* (Ingleby Committee), 79,(1960).

4. In England section 33 of the Children and Young Persons Act, 1969, provides for free legal aid.

short-term institution is variously known as 'observation home' or 'remand home' where children are kept pending enquiry by the Board. During the period of enquiry the children could also be kept with their parents or guardians. However, they are not to be kept with their parents or guardians if the Board feels there is parental or guardian 'unfitness' or 'indequacy.' The 'observation home' or remand home' is envisaged as the venue for temporary care and custody of neglected children pending enquiry. Here psychiatrists and case-workers conduct the social investigation of neglected children and submit reports to the Board for its guidance as well as for the future treatment and rehabilitation of the children.

On the completion of the 'neglect' proceeding, if the Board is satisfied that a child is 'neglected' under the Act, it commits such a child to long-term institutions known as 'children's homes' (Central Act) 'certified school' (Bombay) 'industrial school' (West Bengal) etc., till he ceases to be a child.[5] In special situations, the period of stay may be extended but not beyond the age of eighteen years in the case of a boy or twenty years in the case of a girl. The period could also be reduced by the Board. But in both types of situations, the Board has to record its reasons in writing. The Acts contain detailed provisions for the control and management of these institutions. Superintendents and a Committee of Visitors are appointed as managers of these institutions. Annual inspection by chief inspectors and medical inspection by doctors with or without notice to the managers are mandatory.

The Acts facilitate the establishment of 'voluntary homes,' and 'fit person institutions' which are maintained wholly or partly by voluntary contributions. Such voluntary institutions are under the general monitoring control of government appointed inspecting staff. The government is empowered to suspend or withdraw the certificate granted to private institutions if their performance is not satisfactory.

The Acts also provide for an after-care organisation designed to meet the special needs of children leaving institutions. It is envisaged as a centre for rehabilitating them on the completion of institutionalised life.

Effectiveness

What has been the impact of these institutions on children? Though empirical studies are not available for all the states in India, such studies have been made for Rajasthan[6] and Maharashtra.[7] These

5. There are 90 children's homes and 84 certified schools in the country.

6. M.S. Bedi, *Socially Handicaped Children: A Study of their Institutional Services* (Jodhpur, 1978).

7. H.E. Reuben, *Impact of Institutions on Children.* A Research Project on Rehabilitation of Children other than Delinquents under the Bombay Children Act (Bombay, 1973).

two studies have assessed the influence of these institutions on the non-delinquent children who incidentally constitute a majority among all the children in these institutions. The Rajasthan study considered children who were in institutions while the Maharashtra study interviewed those who had been, at some point of time, in these institutions. Most of the children had discontinued their education prior to institutionalisation. During the period of institutionalisation, they could continue their education which had a definite beneficial impact on their lives. However, their formal education and vocational training were not always adequate to ensure them jobs after they left the institutions. The studies point out that a fairly large number of institutionalised children had come from broken homes. They especially, but also others, required help in many ways to settle in life but the institutions were, more often than not, unable to help.[8]

Despite shortcomings, institutions are necessary for socially dependent children. Their management, however, needs to be improved. The educational level of the child-care staff of these institutions should be higher than what it is today. They should be provided with proper training and guidance to maximise their social skills and endeavours for the children's benefit [9]

Enforcement of 'neglect' standards

The preceding part delineated briefly the statutory standards of child 'neglect,' the conduct of neglect proceedings by Child Welfare Boards, and the short-term and long-term institutions and after-care organisations for neglected children.

Is state intervention justifiable in all types of neglect situations the Acts envisage? The Acts define neglect primarily in terms of parental conduct or home environment. Generally neglect situations have the following categories of parental behaviour: physical abuse, cruelty, inadequate supervision, inadequate parenting, immoral or unconventional parental behaviour. Since coercive intervention can lead to the interference with the liberty of children, it is suggested that the statutory definition of neglect should concentrate more on the specific harm to children than on parental conduct. Further, the harm should be such that the remedy of coercive intervention will do more good than harm. This would mean that certain categories of harm would not con-

---

8. Mandakini Khandekar, *Review of Child Welfare Research in India* (Bombay: Tata Institute of Social Sciences), mimeo.

9. Usha Naidu, 'Social Agents in Destitute Children's Personal Happiness,' *The Indian Journal of Social Work*, 39 (1978), pp. 325-333.

stitute a basis for state intervention, though in some individual cases intervention might benefit the child.[10]

One type of 'neglect' under the Children Acts is when the child has no 'settled place of abode.' This standard cannot possibly be enforced in the context of India's rural migrant population, in particular the construction and quarry workers who set up temporary abodes wherever they find work. Another 'neglect' situation is when a child is 'begging or doing a job which goes against his welfare.' Children are induced to beg or work by poor parents to supplement their meagre earnings. The Indian Council of Child Welfare had once estimated that working children (the nation-wide estimate being 10.4 million) contributed 14 per cent of the monthly earnings of families with an income of about Rs 300. This being so, it would be extremely unrealistic to expect the lower strata of society to give up child labour until the state is able to ensure a substantial improvement in living conditions. Consequently, to bring in child begging and child labour within 'neglect' unless it results in substantial physical abuse of the child may not be fessible in Indian conditions. For example, a child who is grossly overworked or ill-treated by his employer may be protected by coercive intervention leading to 'neglect' proceedings.

The standard of 'unfit parents' or 'indequate parents' as a basis for commencement of neglect proceedings is a vague one. What is 'unfit' or 'inadequate' will reflect the value judgments of Boards, social workers and enforcement agencies. Given the vagueness of the standard, unlimited intervention may possible. The concept of 'inadequate parent' is hard to define and may comprehend within it many varieties of situations. Inadequacy may result from poverty—poor housing, inadequate medical care, poor nutrition; it may be due to drinking problems, mental illness and immorality of the parents. It may be very tempting to help such children from these undesirable. environmental conditions. But in these situations, it may be better for the state to offer services on a purely voluntary basis which the parents may avail of, than the compulsory 'neglect' proceedings which may lead to the ultimate removal of the child from the home environment. One should not minimise the strong qualities of children reared in this environment. They might even be in a position to take care of themselves despite the 'inadequcy' of either both parents or one of them.

Further, in the Indian social setting with extended families (joint families) the inadequacy of immediate parents may be compensated by the other members of the family protecting the children. The state should support agencies with adequate resources to offer help to

---

10. For an incisive and informative article on this subject see Michael Wald, 'State Intervention on behalf of 'Neglected' Children: A Search for Realistic Standards,' *Stanford Law Review*, 27 (1975), pp. 985-1040.

parents when they require it. Do we have sufficient personnel and programmes to allow compulsory 'neglect' proceedings in all types of parental 'inadequacy'? True, children should not be reared in 'inadequate' homes. But is our society able to provide better alternatives for these children? In the circumstances it is advisable to strengthen and expand the social welfare services now offered to families. The allocation of scarce resources should be to use voluntary services for less serious situations and keep compulsory intervention in more severe ones.

In the author's opinion, coercive state intervention in child 'neglect' cases should be limited to circumstances where the child would be harmed specifically as for instance:

(i) When the child has no parents (orphan) or no other member of the extended family willing to take care of him;
(ii) When the child has suffered or is likely to suffer physical injury which causes severe impairment of body or death as a result of parental neglect;
(iii) When the child lives with prostitutes, or brothel-keepers, or confirmed criminals, or is addicted to intoxicants;
(iv) When the child commits criminal offences because of parental pressure.

The state cannot hope to achieve the well-being of neglected children through coercive measures which should be kept to the minimum. But more and more extensive welfare services should be made available on a voluntary basis to all families. In India at this juncture of its development, the state should make child welfare an integral part of the Sixth Five Year Plan. Measures to reduce the poverty level of families should be adopted to raise the living and environmental conditions and the nutrition level of children. The state should not pursue empty ideals at the expense of what is actually attainable within the overall financial limitations.

In order to improve the availability of finances possibly a child welfare cess could be levied to raise resources for the implementation of welfare measures. Parliament could empower the Central Government to levy and collect a child welfare cess by way of surcharge on income tax, corporate tax, wealth tax and gift tax. The proceeds would be credited to a Children's Fund and the Central Government may give grants to voluntary organisations for child programmes. In fact the Central Government proposes to set up a National Children's Fund to facilitate the implementation of child welfare activities in the country. Voluntary organisations engaged in such activities will be able to get grants from the Fund which will have 'accounts' in all

states. The main objective of setting up such a Fund is to ensure that child welfare work does not suffer for lack of resources.[11]

Conclusion

The existing statutory standards of 'neglect' are wide and should be limited to situations of specific harm to the child to warrant coercive state intervention. On the other hand, the state should make available extensive welfare services to cover neglected children. Further, it should generously give grants to voluntary organisations for child welfare programmes. To mobilise financial resouices for this purpose, possibly a welfare cess could be levied. In this connection, the Central Government's proposal to constitute a National Children's Fund is to be welcomed.

11. See *Statesman* (Delhi) January 30, 1979, p. 3, columns 3 and 4.

Development of Religious Identity and Prejudice in Indian Children

Amar Kumar Singh

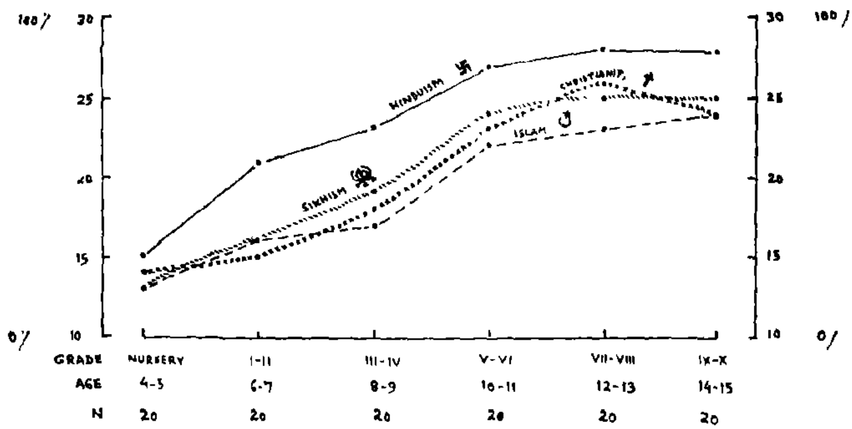
The research on prejudice in India, and to a lesser extent in the West too, is mainly based on the adult population. In fact, research on prejudice in childhood and adolescence is almost negligible, except for a few stray studies.[1] The neglect of research on prejudice of the child is ironical because of the consensus in psychological literature that prejudice is socially learned and formed in the early years of childhood and adolescence. A review of the studies on the origin and development of racial and religious prejudices in the West has shown that these begin to develop as early as four or five years.[2] The omission of research on the prejudice of the child has been due to the methodological difficulties involved in it. It is easier to measure prejudice in the adult population by using self-administered questionnaires and prejudice scales. For the measurement of prejudice in children one needs non-language tests. Another reason for the negligence of research on prejudice of the child is the fact that the adult manifestation of prejudice as discriminatory and violent behaviour attracts

Dr Amar Kumar Singh is Professor and Head, Postgraduate Department of Psychology, Ranchi University and Senior Fellow of the Indian Council of Social Science Research, New Delhi. This paper is based on data from several Ph.D researches conducted in the Postgraduate Department of Psychology, Ranchi University by Lipi Chatterjee, Mona Jabbi, Abdul Khalique, Indira Rai, and Hesamuddin Khan under the Research Programme of Poverty and Prejudice. The financial support given by the ICSSR for some of the research projects and a Senior Followship to me are gratefully acknowledged. My colleagues M K Hassan, K.D. Upadhaya, and Enayatullah have helped in the statistical analysis of the data for this paper. Mr Hafizullah typed the manuscript. An earlier version of this paper was presented at the Seminar on the Socialisation of the Indian Child, Department of Psychology, Allahabad University, March 1979.

1. R N Agarwal. *Inter-Caste Tensions among Children* (Agra: L.N. Agarwal, Educational Publisher, 1960); M B. Prasad, Caste Awareness in Bihari Children,' *Journal of Social aud Economic Studies*, 2, (1960), pp. 293-300; S. Singh, K. Singh and Y. Singh 'Development of Caste Consciousness Among Children,' *Agra University Journal of Research*, 8 (1960), pp. 100-185; S.K. Vyas, 'The Origin of Prejudice in Children,' in T E Shammug m (ed), *Researches in Personality and Social Problems* (Madras: University of Madras 1975), pp 100-154.

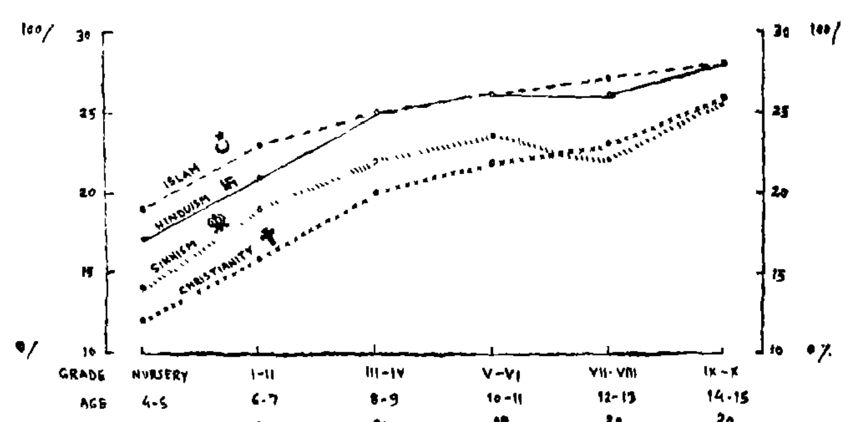
2. I. Pushkin and T. Veness, 'The Development of Racial Awareness and Prejudice in Children,' in Peter Watson (ed.), *Psychology and Race* (Harmondsworth: Penguin Education, 1973), pp. 23-42.

GRAPH-1 : RELIGIOUS RECOGNITION OF HINDU CHILDREN



greater public concern. Therefore, the adult has been the focus of psychological researches on prejudice, ignoring the obvious common sense fact that the flower and the fruit are the outcome of the seed. Whatever may be the reason for the negligence of the research on prejudice of the child, its understanding remains the necessary pre-requisite for the understanding of the prejudice of the adult.

GRAPH-2 RELIGIOUS RECOGNITION OF MUSLIM CHILDREN



The present paper is based on the preliminary analysis of a research programme on the socialisation of prejudice in Indian children. It examines the origin and development of religious indentities and prejudices in Hindu, Muslim and Sikh children (the data on Christian

Table 1: Sample Design: Development of Religious Identity and Prejudice in Indian Children

		Grade/Age											
		Nursery 4-5 years		I/II 6-7 years		III/IV 8-9 years		V/VI 10-11 years		VII/VIII 12-13 years		IX/X 14-15 years	
		M	F	M	F	M	F	M	F	M	F	M	F
Hindu	LC N=60	5 (4.3)	5 (4.4)	5 (6.4)	5 (6.0)	5 (8.6)	5 (8.6)	5 (10.8)	5 (10.6)	5 (12.6)	5 (12.0)	5 (14.4)	5 (14.4)
	HC N=60	5 (4.0)	5 (4.4)	5 (6.0)	5 (6.4)	5 (8.5)	5 (8.5)	5 (10.6)	5 (10.0)	5 (12.6)	5 (12.2)	5 (14.0)	5 (14.0)
Muslim	LC N=60	5 (4.8)	5 (4.6)	5 (6.2)	5 (6.2)	5 (8.4)	5 (8.4)	5 (10.2)	5 (10.0)	5 (12.0)	5 (12.0)	5 (14.4)	5 (14.0)
	HC N=60	5 (4.6)	5 (4.8)	5 (6.8)	5 (6.4)	5 (8.4)	5 (8.2)	5 (10.0)	5 (10.2)	5 (12.2)	5 (12.0)	5 (14.6)	5 (14.8)
Sikh	N=120	10 (4.6)	10 (5.4)	10 (6.6)	10 (5.9)	10 (8.5)	10 (9.0)	10 (10.6)	10 (10.6)	10 (11.9)	10 (11.9)	10 (14.0)	10 (14.3)

Notes: (i) M=Male; F=Female; HC=High Caste; LC=Low Caste
(ii) Figures in brackets in each s mple cell indicate the average age
(iii) The sample is taken from Ranchi town

Table 2: Religious Recognition of Hindu, Muslim and Sikh Children (mean scores)

		Grade/age					
		Nursery 4-5 yrs	I/II 6-7	III/IV 8-9	V/VI 10-11	VII/VIII 12-13	IX/X 14-15
Hindu	H	15	21	23	27	28	28
	M	13	16	17	22	23	24
	S	13	16	19	24	25	25
	C	14	15	18	23	26	24
Muslim	H	17	21	25	26	26	28
	M	19	23	25	26	27	28
	S	14	19	22	23	22	26
	C	12	16	20	22	23	26
Sikh	H	14	20	22	24	26	28
	M	13	17	18	21	23	24
	S	17	25	27	28	29	30
	C	12	14	21	26	26	27

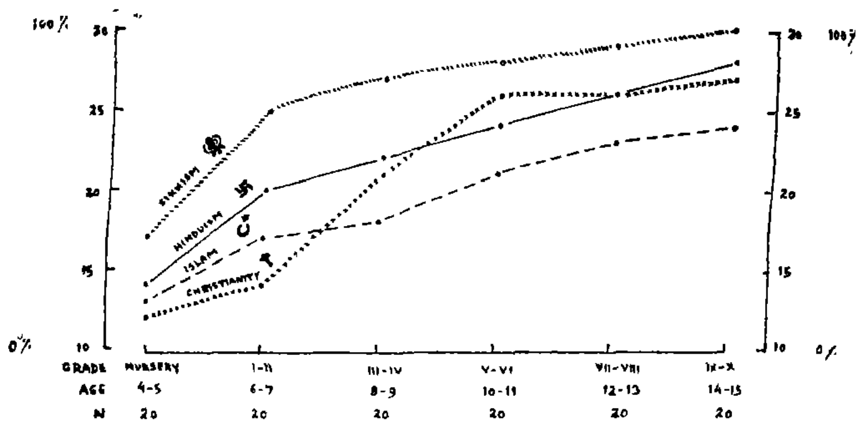
N=20 cases in each sample cell.
H=Hindu; M=Muslim; S=Sikh; C=Christian

Table 3: Religious Preference-Prejudice of Hindu, Muslim and Sikh Children (mean scores)

		Grade/Age					
		Nursery 4-5 yrs	I/II 6-7	III/IV 8-9	V/VI 10-11	VII/VIII 12-13	IX/X 14-15
Hindu	H	20	19	15	15	14	14
	M	27	29	33	34	34	35
	S	27	25	25	25	24	26
	C	26	23	26	25	26	25
Muslim	H	29	36	35	37	34	36
	M	18	12	11	13	11	11
	S	27	25	26	26	26	27
	C	28	27	28	26	29	25
Sikh	H	27	29	25	25	26	26
	M	27	32	37	35	38	34
	S	21	13	11	13	11	11
	C	25	27	28	28	26	29

N=20 cases in each sample cell.

GRAPH-3 · RELIGIOUS RECOGNITION OF SIKH CHILDREN

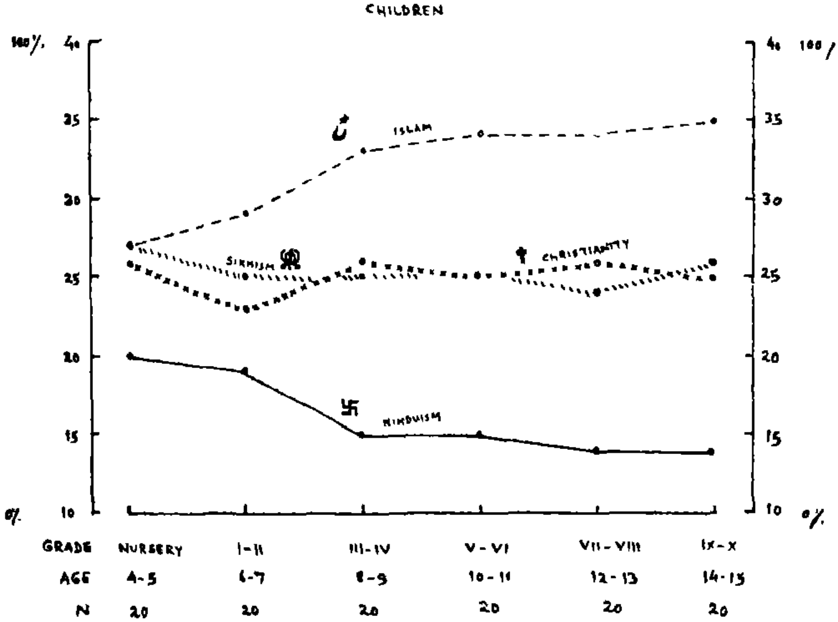


children have not yet been finalised). We are presenting only the broad trends and conclusions of our data

Development of religious indentity and prejudice

The sample. The sample consists of 360 school students from the age-group 4-5 to 14-15 years (Table 1). We have taken students

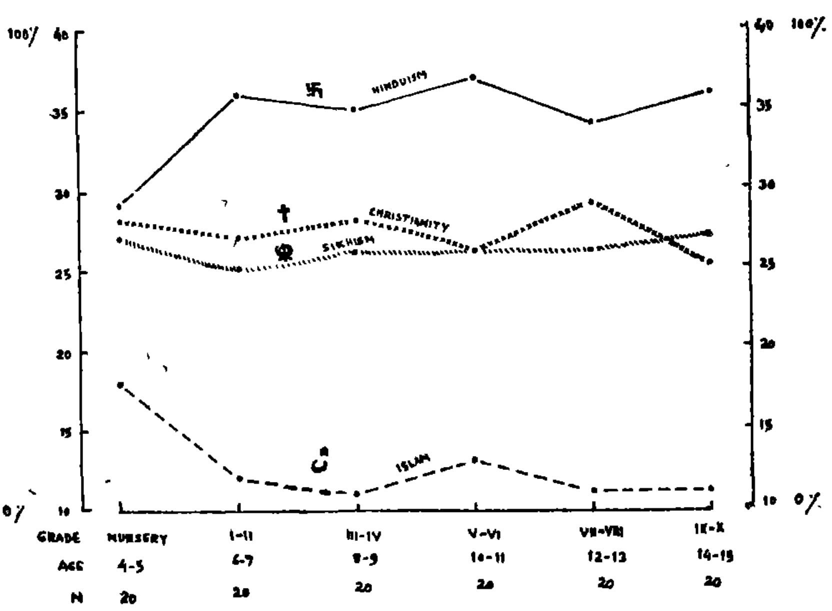
GRAPH-4 · RELIGIOUS PREFERENCE-PREJUDICE OF HINDU CHILDREN



from six age/grade categories beginning from 4-5 years/nursery to to 14-15 years/grades IX and X. Altogether we have 120 cases from each of the three religious groups, namely, Hindus, Muslims and Sikhs. In each of the age/grade categories we have an equal number of male and female cases. The Hindu and the Muslim groups are divided into low and high caste categories. It is a stratified random sample. A list of all the eligible cases in each of the sample sub-cells was prepared and the required number of cases was selected by the random method. The sample is taken from the schools of Ranchi town.

The tests. A set of 40 pictures was used to measure Religious Recognition of the four main religious groups of India, namely, Hindus, Muslim, Sikhs and Christians. The pictures consist of 10 sets of 4 pictures each, showing a theme related to each of the four religious groups, such as a place of worship, wedding, funeral, etc. (Chart 1 p. 339)

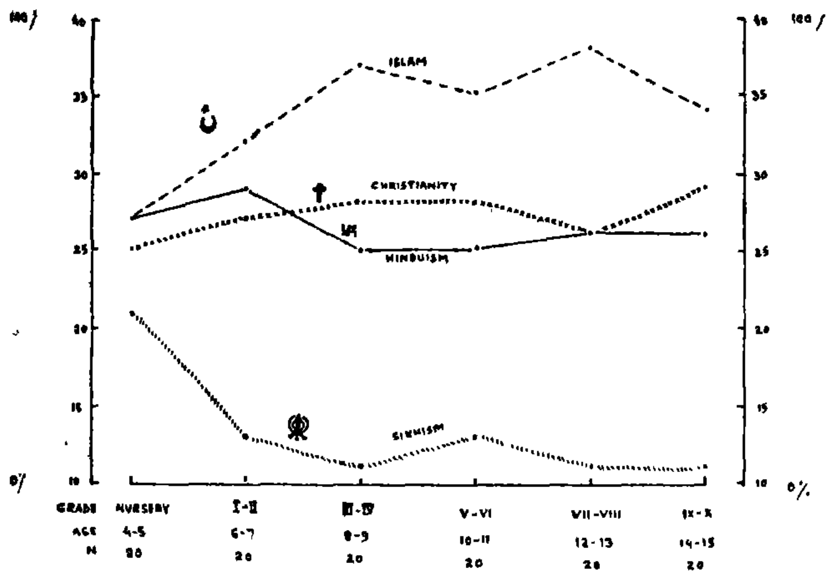
GRAPH - 5: RELIGIOUS PREFERENCE-PREJUDICE OF MUSLIM CHILDREN



The Religious Recognition Test (RRT) has also been used as a Religious Preference-Prejudice Test (RPPT) by asking the subjects to rank the four pictures in each of the 10 sets from the most to the least preferred (Chart 2).

Data. The data on the Religious Recognition Test has been

GRAPH - 6 : RELIGIOUS PREFERENCE-PREJUDICE OF SIKH CHILDREN



given in Table 2 and in Graphs 1, 2 and 3. The data on the Religious Preference-Prejudice Test has been given in Table 3 and Graphs 4, 5 and 6. An overall comparison of prejudice of the Hindus, the Muslims and the Sikhs is given Graph 7 p. 336.

Main findings. The following main tendencies may be observed in the data on the Religious Recognition Test.

(i) Religious information about one's own religion and about other religions increases with age and by the age 14-15 years it is nearly complete (Graphs 1, 2 and 3).

(ii) A child has more information about his own religion in all age-groups than that of other religions (Graphs 1, 2 and 3).

The following tendencies may be observed in the data on the Religious Preference-Prejudice Test.

(i) All religious groups are ethnocentric. Their preference for their own religion compared to other religions is distinctly higher (Graphs 4, 5 and 6).

(ii) This preference for one's own religion is markedly visible in children even four or five years of age. This tendency gets strengthened as age increases and the gulf in their minds between their religion and other religions widens (Graphs 4, 5 and 6).

(iii) Preference for one's own religion and prejudice against others begin to take shape as early as four-five years and fully crystalises by eight-nine years. In the curves of preference-prejudice there emerges a plateau-like phenomenon in all the religious groups from the age-group eight-nine years onwards (Graphs 4, 5 and 6).

(iv) Each religious group picks on one main target for its prejudice. The other religious groups are then lumped together. The Hindus pick on the Muslims as their main target of prejudice and lump together the Sikhs and the Christians (Graph 4). For the Muslims the Hindus are the main target of prejudice and the Christians and the Sikhs are lumped together (Graph 5). The Sikhs, like the Hindus, pick on the Muslims as their main target of prejudice and lump together the Hindus and the Christains (Graph 6). On the overall comparison of the prejudices of the Hindus, the Muslims and the Sikhs, the tendency to pick on the main target of prejudice and lump together other religions has been confirmed (Graph 7).

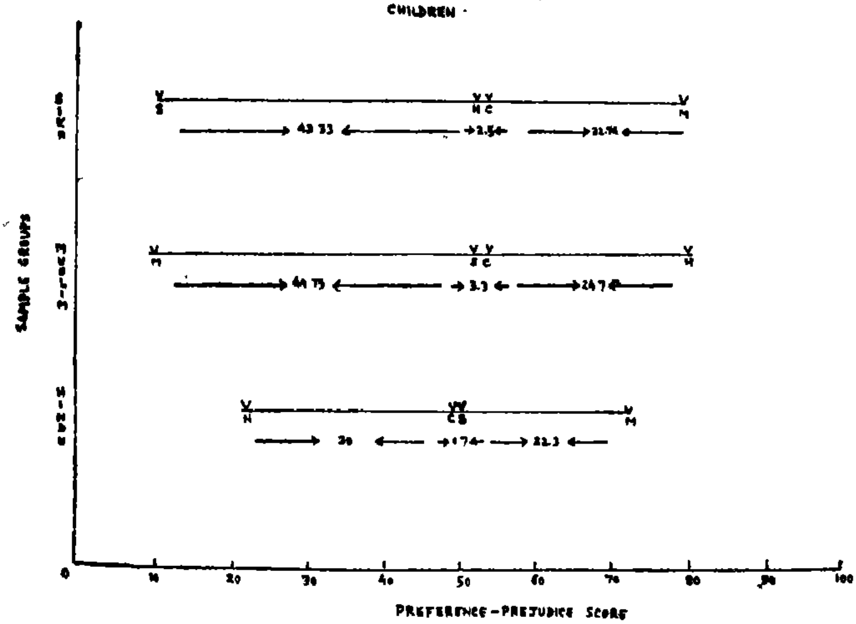
(v) The various religious communities differ in their intensity of prejudices against each other. The Hindus are the least ethnocentric and the least prejudiced. They hate the Muslims as the Muslims hate them, but their hatred is less by about 20 per cent than that of the Muslims' hatred for them. The Sikhs and the Muslims seem to be equally ethnocentric and prejudiced.

Socialisation of prejudice in the Indian child

The data discussed above have demonstrated the early formation of prejudice in Indian children. Prejudice begins to take shape in the nursery schools. Our findings confirm the conclusions on the early development of prejudice in Western children. This has important policy implications. If prejudice is almost fully shaped by age eight or nine years, any intervention to control and reduce prejudice has to be taken before this age is reached. Generally, solutions to

prejudice have been thought of in relation to administrative and political measures. Politics, law and customs play an important role in the maintenance of prejudice and changes in these areas may help in the manifestation of prejudice. However, reduction of prejudice has to be dealt with at the level of its origin and formation.

GRAPH - 7 : PREFERENCE-PREJUDICE OF HINDU, MUSLIM AND SIKH CHILDREN.



This is a very difficult and complex task because the children imbibe their prejudices from their parents. In two separate studies on Hindu and Muslim samples. parents of prejudiced and unprejudiced school students were studied. In the first study 300 female students from grades X and XI were selected from Ranchi schools. One hundred and ninety-five of these were from high and one hundred and five from low castes. These were given a Prejudice Scale measuring religious caste, sex and class prejudices (Chart 3) Twenty-five extremely prejudiced and twenty-five extremely unprejudiced students were selected from Hindu high and low caste groups. The prejudices of fathers and mothers of these prejudiced and unprejudiced groups were measured. In the second study three hundred low caste Muslim male students from grades X and XI were selected from Dhanbad schools. As in the first study, these students were also given the same Prejudice Scale and on the basis of the total prejudice score fifty prejudiced and fifty unprejudiced students were identified. The parents, both fathers and mothers, of these prejudiced and unprejudiced groups

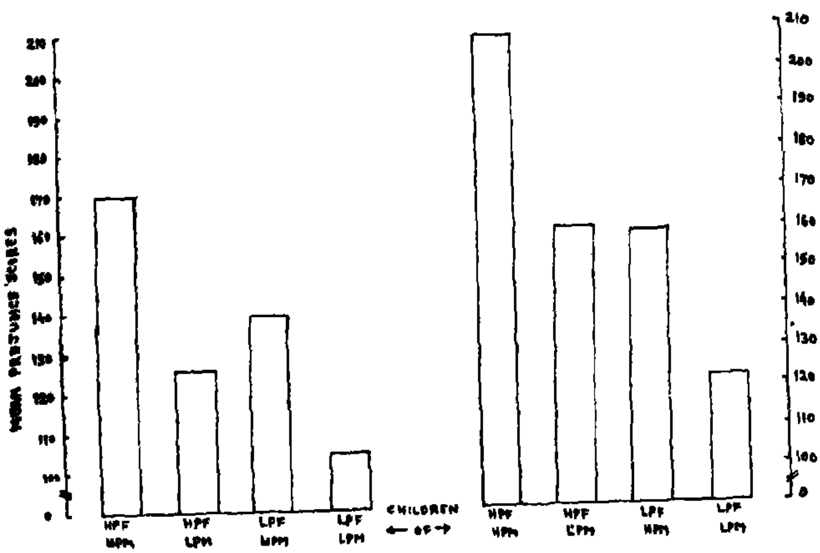
Table 4: Sample of Parents of 'Prejudiced' and 'Unprejudiced' Students

	Prejudiced			Unprejudiced		
	Hindu high caste	Hindu low caste	Muslim low caste	Hindu high caste	Hindu low caste	Muslim low caste
Students	25	25	50	25	25	50
Fathers of Prejudiced students	25	25	50	25	25	50
Mothers of prejudiced students	25	25	50	25	25	50
Total parents	50	50	100	50	50	100
	100		100	100		100

	Median cut-off points of high/low prejudice scores	
	Hindu	Muslim
High prejudiced father/mother	144—300	162—300
Low prejudiced father/mother	60—143	60—161

interviewed to measure their prejudices. The total number of parents were covered in these two studies and their distribution in different categories have been given in Table 4.

GRAPH-8: PREJUDICE OF CHILDREN OF PREJUDICED AND UNPREJUDICED PARENTS



HPF = HIGH PREJUDICED FATHER
HPM = HIGH PREJUDICED MOTHER
LPF = LOW PREJUDICED FATHER
LPM = LOW PREJUDICED MOTHER

In both Hindu and Muslim samples, the parents have been classified into four groups, namely, high prejudiced father/high prejudiced mother, high prejudiced father/low prejudiced mother, high prejudiced mother/low prejudiced father, low prejudiced mother/low prejudiced father. The mean prejudice score of the children of these four categories of parents have been plotted in Graph 8. As can be seen, the children with both prejudiced parents have the highest prejudice score in both Hindu and Muslim samples Similarly, children with both unprejudiced parents have the least prejudice scores in both the groups. The socialisation of prejudice takes place in the family and through parental models The intervention at the level of the family is an extremely difficult task. Yet the conclusion is inescapable that the prejudice of the child cannot be tackled without tackling the prejudice of the parents.

Chart 1: Religious Recognition Test (RRT): Description of Pictures (Total=40 pictures)

Content	Hindu	Muslim	Sikh	Christian
Place of workship	Temple	Mosque	Gurdwara	Church
Priest	Purohit	Molvi	Granthi	Father
Symbol	Tika	Topi	Kara, Kirpan	Cross
Wedding scene	Wedding scene	Wedding scene	Weeding scene	Wedding scene
Funeral	Cremation	Burial	Cremation	Burial
Prayer	Prayer	Prayer	Prayer	Prayer
Important Festival	Diwali	Muharram	Gurpurab procession	Christmas Tree
Carrying the dead	Pyre	Cot	Pyre	Coffin
Important place of worship	Jagannathpuri	Jama Masjid	Golden Temple	St Peter's Church
Woman	Woman	Woman	Woman	Woman

Coding: (1) Incorrect/don't know; (2) Partially correct: Either the object of the picture *or* the associated religion is correctly identified; (3) Correct: The object of the picture as well as associated religion is correctly identified.

Chart 2: Religious Preference-Prejudice Test (RPPT)

The pictures in the Religious Recognition Test are used and the subject is asked to rank them from 1 to 4, beginning with the most preferred (1) and ending with the least preferred (4).

Coding: An example

1. Temple (Most preferred)
2. Gurdwara
3. Church
4. Mosque (least preferred)

Chart 3: Prejudice Attitude Scale, Sub-scales and Themes

1. *Religious Prejudice*

Agrees/approves: intra-religious group relationships: Marriage; mixing of children; renting house; medical treatment; trust; friendship and affinity; discrimination on the basis of religion; coreligionists more helpful in bad days; teachers practising religious prejudice

Disagrees on similarity of all religions.

2. *Sex Prejudice*

Agrees/approves: intrinsic inferiority of women, lower feminine intelligence, competence; lesser education for daughter, submissiveness feminine virtue, husband should get better food; son's stronger claim on inheritance.

Disagrees/disapproves: equal sex-rights, high governmental jobs for women; equal freedom for boys and girls; widow marriage, working women.

3. *Caste Prejudice*

Agrees/approves: lower castes more criminal, dishonest untrust-worthy; have bad manners despite education/wealth; less intelligent; intra-caste relationship; friendship; renting house, medical treatment.

Disagrees/disapproves: special educational/job facilities for lower castes; intermixing of children of low/high castes; intercaste marriage; intercaste dinning.

4. *Class Prejudice*

Agrees/approves: intrinsic lower intelligence; wicked; criminal, proud, quarrelsome nature of poor; poor incorrigible—can't be helped; inferior medical treatment for servant; separate schools for rich/poor; different food for rich/poor is hostels; rich better students; rich more helpful to the nation.

Disagrees/disapproves: free education for poor; playing together of poor/rich children.

SOCIAL ACTION

A Quarterly Review of Social Trends

OCT-DECEMBER 1979 VOLUME 29 NO. 4

CONTENTS

Fertility Implications of Nuptiality Patterns in South Asia

Stan D'Souza

This article presents an overview of nuptiality in the sub-continent with particular reference to India and Bangladesh. Data from censuses and national surveys constitute source material. Three items characterise nuptiality over nearly a century: early age of marriage, a large number of widows, and the universality of marriage. Important exceptions are Sri Lanka and Kerala where the age of marriage has risen and important reductions in fertility rates have been registered. The effect of changes in nuptiality patterns on fertility is discussed in the paper. It is argued in the case of Kerala that decreases in fertility are due to a complex set of factors including education and not merely the result of a rise in the age of marriage.

The countries usually included in South Asia are Afghanistan, Bangladesh, Bhutan, India. Pakistan. Nepal and Sri Lanka. Though these countries are contiguous and cover the area of the Indian subcontinent, communication between them is not easy. Restrictions on travel between India, Pakistan and Bangladesh have been prevalent over the last few decades. Further, the difficult political climate having its sources in the partition of the country and suspicions generated between the major communities have not facilitated communication between scholars and the free transmission of scientific material.

This paper attempts to present a general picture of marriage patterns in South Asia and their effect on fertility. Apart from the problems mentioned, serious difficulties are involved in this attempt as marriage registration data are practically non-existent. Vital registration systems exist in India only as a sample registration system. In Bangladesh, fertility data, even on a sampling basis, have not been collected in a regular manner. Pakistan suffers from similar draw-

A previous version of this paper was presented at an IUSSP Seminar on Nuptiality and Fertility at Bruges, January 8-11, 1979. Till recently Director of the Indian Social Institute, Dr D'Souza is currently Senior Scientist, International Centre for Diarrhoeal Diseases Research, Dacca, Bangladesh.

backs. Against this background this paper will restrict its focus to India and to a lesser extent to Bangladesh but, occasionally, examples from the other neighbouring countries of South Asia will be provided.

In the Indian sub-continent, as a whole, society remains to a great extent sex segregated. Women have particular assigned roles that are considered acceptable, typically that of wife and mother or of a woman having thriving children. Against this background, marriage is usually arranged and the choice of parents is based on compatibility of life styles within a rigid framework of castes and religious norms. Migration studies indicate that 'marriage migration' forms an important aspect of rural to rural migration, with a majority of female migrants. Brides leave their father's home to join their husband's home at 'return' marriage.

Adapting to the availability of newspaper advertisements, arrangements for marriage are often made among literate groups through matrimonial advertisements. A study made on advertisements, appearing in a South Indian journal during the first quarter of 1966 indicates that the most specified factor in order of frequency are caste 86.36 per cent, age 74.43 per cent, education 48.11 per cent, occupation 45.27 per cent. It is shown that while changing attitudes are present with regard to selection of spouses, traditional features especially that of caste remain the rule (Rao and Sudarsen 1978).

In India though dowry has been theoretically banned, the custom remains quite prevalent. Dowry derives from an ancient Hindu custom which was intended to ensure financial security to the bride but is appropriated by the groom's family. The Report of the 1974 Commission on the Status of Women in India has the following: 'All over India the Committee heard the complaint that dowry is on the increase, and has penetrated communities and regions which did not practise it earlier. Its extent depends on the socio-economic status of the bridegroom and differs in different caste groups. There are more or less well-defined grades of dowry for men in different professions.' The Muslim law provides for the husband to give 'mehr' in money or property to his wife to be settled on her ownership before marriage is legalised. In practice however, though the 'mehr' is finalised and announced, it may not always be given, instead many Muslim communities have also adapted the practices of dowry.

Marriage practices within the sub-continent depend on many legal particularities and traditions. This paper will focus on aspects of nuptiality that have national rather than local level applicability. The case of Kerala is singled out due to some interesting features that would be useful towards an understanding of the future course of nuptiality and its effect on fertility in the sub-continent. The religious composition of the countries of the Indian sub-continent has been

determined by the partition of India which took place in 1947. In 1971, 83 per cent of the population in India were Hindus whereas over 97 per cent were Muslims in Pakistan in the year 1961, and 85.4 per cent for Bangladesh in the 1974 census. Religious practice still plays an important role in determining socio-cultural behaviour patterns.

Materials

National level systems of marriage registration do not exist in the sub-continent. The basic data source for the study of nuptiality in the sub-continent remains the decennial censuses which have been taken in the sub-continent since 1871. Based on the census data, estimates of age at marriage over the last decades have been made. The census reports have interesting information regarding some of the cultural background and religious practices connected with marriage (Natarajan 1972). Important information on nuptiality and fertility in India has been obtained from the National Sample Survey (NSS), the Sample Registration System (SRS) and the Sample Survey undertaken by the Office of the Registrar General (1960-61). Smaller studies are occasionally referred to in this paper but their representativity is limited (Jain 1975).

The National Sample Survey was started by the Government of India in 1950 as a continuing series of socio-economic surveys conducted in successive rounds with the whole of India under geographical coverage. The collection of data on vital events was begun in the 2nd round (April-June 1951). In the 7th round (October 1953-March 1954) a revised format was introduced for collecting information on current events, births, marriages, deaths and sickness in the sample household. The scale of the enquiry was expanded in the 14th round (July 1958-June 1959) when demographic topics became an independent subject of enquiry.

Data on marriage were collected between the 7th to the 13th rounds of the NSS. The 7th round data relating to the rural sectors has been analysed in report number 54. Marriage data have not been specifically obtained since the 13th round (1957-58). Historical fertility data have, however, been collected in later rounds, and thus, some less out-of-date information does exist. Report number 185 on the 19th round provides useful information linking the age of marriage and fertility of couples (Das and Bhattacharya 1977).

The Sample Registration System was begun in the year 1964-65 by the Registrar General's Office in order to provide reliable estimates of birth and death rates for rural and urban areas at state and national levels. The 1961 census was used as a sample frame. The sample size of 150 units in a state was used for the rural areas. The survey covers 2,412 rural units and 1,268 urban census blocks.

The Sample Registration System basically consists of a dual registration system through a continuous enumeration of vital events and an independent half yearly survey of births and deaths by a supervisor. Updating of the household schedule is also carried out (Lal and Swamy 1977).

The Office of the Registrar General, India, conducted a sample survey in the year 1960-61 in various states in order to collect data on births and deaths and fertility information. About 300-400 villages were randomly selected in each state in order to cover 1-2 per cent of the total population. A similar sample of blocks in towns and urban areas was covered. Information was collected for women currently married regarding their life time fertility as well as number of children born during the last twelve months. The data set provides useful information linking age at marriage and completed fertility (Jain 1964).

The data situation in Bangladesh is even less bright. Data sources other than the census are quite limited in this scope. An important source of data is the Registration System undertaken by the Cholera Research Laboratory in Matlab Thana, Comilla District. In undivided Pakistan a National Impact Survey was undertaken in 1968-69. Two recent surveys having national coverage are the Bangladesh Fertility Survey (BFS) and the Bangladesh Retrospective Survey of Fertility and Mortality (BRSFM). They have attempted to provide data on fertility and mortality but also contain some information on marriage (D'Souza and Rahman 1977).

The National Impact Survey consisted of 2,889 households. The survey was designed to provide demographic estimates for urban and rural areas. The Bangladesh Retrospective Survey of Fertility and Mortality was conducted in April-May, 1974 (BRSFM 1974). Retrospective data on fertility and mortality were collected with the aim of finding indirect estimates of mortality and fertility. The sample size consisted of 482 blocks, comprising 63,000 households, that is 0.5 per cent of the census enumeration blocks. The survey was undertaken immediately after the 1974 census. The Bangladesh Fertility Survey was carried out under the auspices of the World Fertility Survey (WFS) in London (Dec. 1975-March 1976) and 6,125 households were included in the sample.

The Cholera Research Laboratory has collected data since 1966 in Matlab Thana. Every individual in the survey area bears a village census and an individual serial number and can be readily identified. A local female resident of each village visits each household daily and records vital events. Collection, recording, supervision and coordination of field work are done by several levels of workers. The sample size consisted of 132 villages in 1966 with 112,000 persons,

and 243 villages in 1977 with 225,000 persons. Though data collected by the Cholera Research Laboratory is of good quality, the problem of representativity for the nation is quite important.

This paper has two parts followed by a brief discussion.

Part 1: Nuptiality in South Asia

Part 2: Effects of Nuptial Patterns on Fertility

PART I: NUPTIALITY IN SOUTH ASIA

Census data over the last century present a consistent pattern with regard to marital status in India. Three features are continually present:

1. Universality of marriage
2. Early marriages, especially among women
3. Large numbers of widows

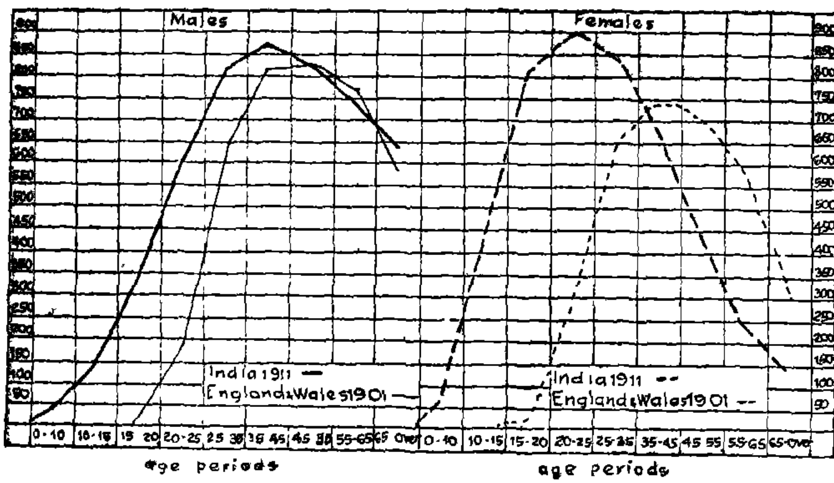
The universality of marriage was pointed out as early as 1881 in the All India Census Report. 'Here we have the cardinal principles by which the Hindu marriage system is regulated. Marriage is a necessity to every one who acknowledges the Brahmanical authority. It must be contracted with a girl of an age below puberty, and considerably less than that of the husband. The widow, however is never to remarry. A few of the main tendencies of this system may now be noticed. First comes the almost universal prevalence of marriage, with the result, in the present state of Indian society of a surplus of children, and a consequent high mortality amongst them. Then there is the inequality of age, a most important feature, as it leads to the diminution of the period during which the parents are both living and increases therefore, as the life of women is better at advanced age than that of men, to a superabundance of widows.'

The All India Census Report of 1911 on marriage deals with the same three characteristics. A diagram presented in this report comparing proportions of currently married persons in India in various age groups with those in England and Wales (1901) is quite instructive regading the striking differences in marriage patterns. England and Wales fit into the 'European pattern' (Hajnal 1965). This consists of '(i) a high age at marriage and (ii) a high proportion of people who never marry at all. The 'European pattern' pervaded the whole of Europe except for the Eastern and South Eastern portion.'

The 1911 diagram has been reproduced on page 346. The curves for India (1911) are to the left to those for England and Wales indicating earlier marriage patterns. Again, the height of curves for India is higher showing greater universality of marriage. Finally the Indian curve falls off very steeply for females compared with that for women in England and Wales. This would indicate a large number of widows. It is interesting that the fall of the curve for males

after the age group 35-45 is reasonably similar for both India and England.

Diagram Showing The Proportion Of the Married Per Mille at Each Age-Period (i) in India and (ii) in England and Wales



Reformist tendencies did exist in Hindu society. The 1901 census report records the efforts of organisations like the Brahma Samaj and the Arya Samaj to put a stop to child marriages. Princely states, such as Mysore and Bengal, were among the earliest to legislate child marriages. The 1901 report states that the Mysore Government passed a resolution forbidding marriage of girls under 8 altogether and that of girls under 14 years with men over 50 years of age. Legislation in Baroda (Infant Marriage Prevention Act of 1904) defined the age at which marriage was permissible—12 years for girls and 16 years for boys. It was not till 1929 that the social legislation against child marriage was passed for British India. The Child Marriage Act commonly known as the Sarda Act came into effect in 1930. Under this act penalties were provided for the solemnisation of marriages under 18 for male children and females under age 14.

The 1931 All India Census Report states that the Sarda Act was not very effective and that a considerable number of persons were married in contravention to the Act and that some misreporting had taken place to conceal child marriages. There was serious resistance to this Act in both Hindu and Muslim communities as it was felt that some personal rights had been infringed upon. A spate of early marriages took place in the period between the passing of the Act and its coming into effect. The 1931 census report provides a graphic description of some of the frenzy surrounding attempts to get children married off before the effective date of the Act.

Table 1: Proportions Single, Males and Females: India 1891-1951

	Age	1891	1901	1911	1921	1931	1941	5119(a)
MALES	0-5	.994	.993	.993	.994	.983	.989	.989
	5-15	.883	.910	.918	.926	.880	.911	.935
	15-25	.488	.510	.525	.550	.445	.518	.542
	25-35	.129	.141	.139	.147	.112	.123	.133
	35-45	.050	.060	.055	.057	.048	.047	.052
	45-55	.033	.043	.041	.040	.035	.037	.038
	55-65	.012	.039	.037	.036	.030	.036	.033
FEMALES	0-5	.986	.985	.985	.988	.967	.986	.987
	5-15	.719	.737	.750	.779	.699	.847	.851
	15-25	.081	.097	.100	.117	.086	.142	.172
	25-35	.016	.022	.032	.022	.017	.011	.029
	35-45	.011	.015	.013	.014	.011	.008	.015
	45-55	.010	.010	.011	.012	.008	.009	.012
	55-65	.008	.009	.011	.011	.007	.009	.010

With the Independence of India and Pakistan in 1947, there was a growing awareness of the population problems facing the sub-continent. Planners stressed the necessity of delaying early marriages. The Hindu Marriage Act of 1955 raised the legal age of marriage for women to 15 years in line with the Indian Christian Marriage Act of 1872 which set the legal age of marriage at 18 years for boys and 15 years for girls. Recently a 1978 amendment has been made to the Child Marriage Restraint Act and raised the minimum age of marriage for boys to 21 and for girls to 18 years. In Pakistan (including Bangladesh), the Muslim Family Law Ordinance was passed in 1961 requiring registration of all Muslim marriages. According to this Ordinance the Marriage Restraint Act was amended. The minimum age of males was increased from 18 to 21 years and for females from 14 to 16 years.

Table 1 presents proportions single of males and females by age group in India from 1891-1951 (Agarwala 1960). Till the year 1941 the area covered includes Bangladesh and Pakistan. The data for 1951 apply to India alone. For females, in the age group 5-15 years,

Table 2: Percentages of Population Single by Age and Sex: India 1961 and 1971

Age group	Males		Females	
	1961	1971	1961	1971
0-9	—	—	—	—
10-14	93.15	95.31	80.45	88.24
15-19	76.14	81.42	29.19	43.70
20-24	43.84	49.90	5.97	9.52
25-29	17.71	18.62	1.89	2.29
30-34	7.75	6.97	1.04	1 02
35-39	4.59	4.02	0.74	0.78
40-44	3.91	3.12	0.62	0.59
45-49	3.29	2.67	0.50	0.52
50-54	3.22	2.60	0.47	0.45
55-59	2.93	2.39	0.43	0.52
60-64	2.90	2.44	0.42	0.39
65-69	2.83	2.33	0.40	0.37
70+	2.81	2.46	0.40	0.36

one notices a small rise in proportions single for the years 1891-1921 followed by a sharp drop in the year 1931. This drop reflects the rush in marriages that took place before the Sarda Act came into effect. Census years 1941 and 1951 again show a rise in proportions single. A common feature for females older than age 35 is that the precentage of single women remains less than 2 per cent over all the censuses. The proportions of single males in the age group 5-15 show

a similar increasing tendency till the year 1921 with a drop in 1931 followed by an increase in the following two censuses. The proportions single remain somewhat higher than females in the same age group for particular census years. For men over age 35 the percentage single is of the order of 6 per cent dropping to under 4 per cent after age 45.

A comparison of the percentages of single population by age and sex in the last two censuses taken in India in 1961 and 1971 is presented in Table 2. The data show that the precentages of single males and females have increased till the 25-29 year age groups for the1971 census as compared to the 1961 census. This would indicate a slightly raised'age at marriage'—a topic that will be discussed in more detail in the next section.At ages over 30 however, the percentages single remain approximately the same in both censuses showing that the universality of marriage remains a feature of Indian marital behaviour The 1971 census does in fact show slightly lower percentages for both males and females than that of the 1961 census for these ages.

The increase in the percentage single of females is noticeable for women under 20 years of age. In the age group 10-14 years there is an increase of 8 per cent and for the age group 15-19 years a 14 per cent increase is noted. For males, in the same groups, there is an increase of 2 and 5 per cent, respectively.

The examination in Table 3 of the rural and urban differences for age groups under 30 for the years 1961 and 1971 shows a marked increase in the percentages of single women in urban areas. For the age group 10-14 years there is an important increase in percentage of single females in rural areas though the data would indicate that the

Table 3: Percentage of Population Single for the 1961 and 1971 Censuses by Age and Sex (Urban and Rural), India

Ages		Males		Females	
		1961	1971	1961	1979
10-14	R	92.08	94.47	77 63	86.33
	U	97.96	98.78	93.01	95.95
15-19	R	72.86	77.94	25.00	38.01
	U	88.47	92.64	47.61	63.40
20-24	R	39.25	43.70	4.46	6.84
	U	58.92	67.05	12.72	10.04
25-29	R	15.46	15.66	1.47	1.76
	U	26.25	28.18	3.85	4.39

practice of child marriage is still prevalent. In the age group 15-19 years, though there is a 13 per cent increase in proportions single for

the rural areas, nearly 60 per cent of this age group are married as against less than 40 per cent in the urban areas. With regard to males, there is also an increase in both urban and rural areas in percentages single though rural increases are less striking than those for urban areas for males over age 20 years.

Table 4 provides data on widowhood for the 1961 and 1971 censuses. The 1971 census shows a decline in the percentage of widows for all age groups as compared to the 1961 census. One sees from the table the rural/urban differences are not very important. What is significant, is the fact that female widowhood is much more

Table 4: Percentages of Widowed by Sex and Age Groups Urban and Rural India—1961 and 1971

Age group	Males		1961		Females	
	T	R	U	T	R	U
10-14	.07	.08	.02	.13	.15	.05
15-19	.30	.34	.12	53	.57	.34
20-24	.90	1.02	0 52	1.30	1 36	1 03
25-29	1 68	1.82	1.14	2.89	2.99	2.45
30-34	2.62	2.83	1.83	6 42	6.56	5.79
35-39	3.67	3.95	2.60	11.15	11.31	10.37
40-44	5.99	6.39	4.39	20 60	20.67	20.63
45-49	8.25	8.66	6 38	28 84	28 68	29.72
50-54	12.38	12 88	10 06	45 47	45 28	46.53
55-59	15.54	16.01	13.15	50 24	49.80	52 79
60-64	21.83	22.27	19 55	69.62	69 41	70.78
65-69	25 88	26 30	23.56	71.85	71.56	73.51
70+	36.11	26.38	34.48	84.39	84.16	85 71
			1971			
10-14	.04	.05	.01	.05	.06	.02
15-19	.18	.22	.05	.33	.38	.17
20-24	.58	69	.27	88	.94	.66
25-29	1.25	1 43	66	1.94	2 05	1.51
30-34	1.99	2 23	1.15	4 09	4.22	3.55
35-39	2 66	2.97	1 58	7 03	7.18	6 41
40-44	4.43	4 89	2 80	14.38	14.42	14.15
45-49	5.90	6 43	3 91	20 63	20 48	21.45
50-54	9.64	10.29	6 95	36 59	36.30	37.96
55-59	12.06	12.73	9.05	41.21	40.59	44.33
60-64	17.14	17.77	14.00	62.38	62.01	64.22
65-69	20.39	20 95	17.54	64 56	63.95	67.65
70+	30 43	30.39	27.92	80.30	79.91	82.35

serious than that of males due to the restrictions on widows remarrying whereas, in all age groups, males would tend to remarry. The

difference in percentages widowed between males and females increases with age. For the 1961 census in the age group 45-47 around 8 per cent of men are widowers whereas nearly 30 per cent of the women are widows. In the 55-59 age group a little over 15 per cent men are widowers while nearly half the women are widows. For the 1971 census the percentage of widowed diminishes but the same pattern is observed as in the 1961 census. In the age group 45-49 around 6 per cent of the men are widowers while 20 per cent of the women are widows. In the 55-59 age group 12 per cent of the men are widowers as compared to 41 per cent of the women being widows. The rural/urban patterns are also maintained in both censuses, The percentage of widowers is slightly higher in the rural areas than in urban areas in all age groups. In the case of women at younger age groups the percentage of widows is higher in rural areas than in the urban areas, whereas this pattern is reversed at later ages after age 40 when there are higher percentages of widows in the urban areas than in the rural areas.

Table 5: Percentage Single for Five Year Age Groups in Censuses of 1921-1961 by Sex, Pakistan

Age group	Percentage single				
	1921	1931	1941	1951	1961
Males					
0-4	99.62	98 61	99.56	99.55	—
5-9	98.53	94.32	98.29	99.83	—
10-14	92.94	88.46	95.05	95.33	96.76
15-19	74.00	57.17	77.06	76 18	85.71
20-24	42.19	37.48	42 07	44.38	51.23
25-29	19.49	14.03	18 63	18.28	21.97
30-34	9 62	8 75	7.55	8.70	9.19
35.39	5.55	5.04	4.51	4.64	5.23
40-44	4 74	4 15	3 43	3 77	3.48
45-49	3.64	3.37	3.13	2.58	2.78
50-54	3.50	3.10	2.87	2.13	2.22
Females					
0-4	99.05	96 69	99.42	99.87	—
5-9	92.28	77 67	95 38	99.03	—
10-14	54 46	56.18	68 00	81.51	77.45
15-19	10.84	10.79	20.76	27.29	25.49
20-24	3.22	3.65	3.74	9.05	5.85
25-29	1.74	1.82	1 48	3.04	2.45
30.34	1.43	1.42	0.96	1.80	1.54
35-39	1.07	1.17	0.99	1.43	1.28

Source: cf. Sadiq (1965).

Data for the area covered by erstwhile Pakistan before the formation of Bangladesh in 1971, display similar results. Table 5

presents the percentages single for five age groups in censuses from 1921-1961 (Sadiq 1965). One notices here that for age groups above 35 years the percentage of women single is only 2 per cent while that of men is around 6 per cent. Similar results were noticed in the case of India (Table 4). The special nature of data for the year 1931 reflecting the turmoil surrounding the Sarda Act is also present. The percentage of single females in the age group 5-9 drops to around 77 per cent.

Table 6 presents data showing percentages widowed for the 1961 and 1974 censuses for Bangladesh. Both males and females show decreased percentages at all ages indicating a rise in the general health standards of the country. In the age group 45-54 the per cent of widowers has fallen from 5 to 2 per cent and in the age group 55 and over the decline is from 12 per cent in 1961 to 7 per cent in the 1974 census. For females, the percentage of widows has remained high, though for women over 45 years a fall from 45 to 31 per cent is noted in the age group 45-54 years and from 76 to 65 per cent for women aged 55 years and over. The same type of cultural pressure against the remarriage of widows exists as in India though there are no religious restrictions for Muslim women to remarry.

Data from a rural area in Bangladesh show that widowers remarry within two years of the death of their previous wives and more than one half do so within a year. Widow remarriage is less frequent. For women, as a whole, there appears to be an age limit around 30 years for remarrying whereas even older men do remary (CRL 1978).

Table 6: Percentages Widowed by Broad Age Groups Censuses 1961 and 1974, Bangladesh

Age group	Males		Females	
	1974	1961	1974	1961
10-14	0 015	0.042	0.122	0 246
15-19	0.160	0.197	0.961	0.795
20-24	0.638	1.064	1.762	2.050
25-34	1.047	1.936	3.855	5.741
35-44	1.313	2.875	13 012	20.609
45-54	2.491	5.323	31.583	45.969
55+	7.551	12 589	65.712	76.606

Divorce is not frequent in India and percentages of currently divorced by sex in various 5 year age groups remain less than 1 per cent of the population in particular age groups for the 1971 census data. In Bangladesh, divorce is more frequent. Statistics on currently divorced persons mask the fact that divorced men mostly re-

marry so that the census statistics for the 'currently divorced' men remain low. For women the highest percentages of 'currently divorced' are in the age groups 15-19 and 20-24 years being 2.8 and 2 per cent, respectively. According to data from a rural area in Bangladesh the most frequent cause of divorce is childlessness (CRL 1978).

Age at marriage

In the absence of adequate data on age at marriage a technique devised by Hajnal (1953), has been used to estimate mean age of marriage over the last decades from census data. The method gives the age of first marriage for *all* males and females in synthetic cohorts who marry for the first time before certain advanced age say 50 years. This measure is called the singulate mean age at marriage (SMAM). Using this technique Agarwal (1960) has estimated the mean age of marriage from 1891-1951 for India. These estimates are provided in Table 10, including estimates for 1961 and 1971 due to Goyal (1975). One notices from these data that there has been a steady rise in the age of marriage of females from just under 13 years to around 17 years in 1971. For males the rise has been less marked from an average of approximately 19 and a half years to about 22 years of age. The year 1931 shows a sudden drop in the age of marriage and represents the impact of the imminent Sarda Act. The data show a steady decrease in the difference between age at marriage of males and females. Males marry later than females but the age of difference has diminished from 7 years at the beginning of this century to 5 years in 1971.

Table 7: Mean Age of Marriage in India for 1891-1971

Year	Males	Females	Difference
1891	19.6	12 9	6.7
1901	20.1	13.3	6.8
1911	20.3	13.5	6.8
1921	20.8	13.9	6.9
1931	18.9	12.7	6.2
1941	20.0	14.7	5.3
1951	20.6	15.3	5.3
1961	21.4	16.1	5.3
1971	22.0	17.3	5.0

Hajnal's technique for the estimation of mean age at marriage has also been used for census data in Pakistan. Sadiq's (1965) estimates for Pakistan (including Bangladesh) from 1921 to 1961 are shown in Table 8. One notices that, here too, apart from a slight fall in 1931, there has been a steady rise in the mean age at marriage for

both males as well as females. The female SMAM for 1951 appears to be a little high and may reflect the unsettled conditions following partition of the country in 1947.

Table 8: Mean Age of Marriage in Pakistan 1921-61

Year	Males	Females	Difference (in years)
1921	21.5	13.0	8.5
1931	19.6	12.3	7.3
1941	21.6	14.3	7.3
1951	22.0	15 9	6 1
1961	23.1	15.5	7.6

Table 9 compares data in the east and west wing of Pakistan for the year 1961. While the difference between the mean age at marriage of males in both wings is only about half a year, that for females is over three and a half years. Women in East Pakistan (now Bangladesh) married at an average age of around 14 years, while those in West Pakistan around 17 and a half years. In the 1961 census the the difference between males' and females' age at marriage in the west wing was about 6 years as against 9 years in the east wing.

Table 9: Mean Age at Marriage in 1961 for East and West Pakistan

	East	West
Males	22.9	23.5
Females	13 9	17.6
Difference	9.0	5.9

Source. Sadiq (1965)

The singulate mean age at marriage has been calculated for Bangladesh utilising 1974 census data. Table 10 compares the SMAM for the 1974 census with those of previous censuses as well as the BRSFM (census Report 1974). One sees that the values of SMAM have increased about 1 5 years since 1951 for both males and females, and now stand at about 16 years for females and 24 years for males The 8

Table 10: Singulate Mean Age at Marriage: 1974 Census and Other Data, Bangladesh

Sources	Males	Females	Difference
Census 1951	22.4	14.4	8.0
Census 1961	22 9	13.9	9.0
BRSFM 1974	24.9	16.5	8.4
Census 1974	24.0	15.9	8.1

to 9 years difference in SMAM for males and females has remained over the last 25 years.

Since Islam is dominant in both Bangladesh and Pakistan, the later age of marriage of females is not due to religious differentials. Rather, the age of marriage is conditioned by local social customs, female literacy levels being now in both areas. Data from Baluchistan and North West Frontier Province show a late marriage pattern, and it has been suggested that the practice of 'bride price' may be responsible (Sadiq 1965). This price has to be paid by the groom or his relatives and would tend to delay marriages. Similar customs exist across the border in Afghanistan and may also account for later female mean age of marriage there. Data on marital status has been collected during the Afghanistan Demographic Survey conducted in both rural and urban areas of Afghanistan during the years 1971-73.

Table 11 presents proportions single by age groups as well as the singulate mean age of marriages in rural and urban areas of Afghanistan (ADS 1975). Marriages take place later in the urban areas as compared to rural areas. The average age at marriage being about 20 years for women in urban areas as against 18 years in rural areas. For males there is a difference of about a year, being 26 years for urban areas as against 25 for rural areas. The age difference is about 7 years in urban areas as against 8 years in rural areas between male and female SMAM.

Results from the Impact Survey (1968) indicate that the median age of marriage for currently married women was 13.2 years for rural areas and 13.6 for urban areas in Bangladesh Recent results from the Bangladesh Fertility Survey (1975) shows that the mean age of marriage is 13.6 for women in urban areas and 12.4 years in rural areas, for currently married women.

Table 11: Singulate Mean Age of Marriage and Proportions Single in Afghanistan by Sex and Age Groups (Urban and Rural) 1972-73

Age group	Urban		Rural	
	Male	Female	Male	Female
10-14	.997	.975	993	.940
15-19	.948	.638	.922	.483
20-24	.725	.243	.668	.109
25-29	.420	.082	.397	.034
30-34	.219	.035	.195	.013
35-39	.119	.019	.104	.010
40-44	.080	.022	.055	.012
45-49	.049	.017	.039	.004
50-54	.046	.024	.016	.011
SMAM (in years)	26.7	19.5	26.2	17.8

Results from the BFS also indicate a rise in the age of marriage. Table 12 shows that the percentage of women married before age 13 rises with the age of the respondents. The youngest age group 15-19 in rural areas has only 33.1 per cent married before age 13 whereas the oldest group has a percentage of 61.7. Urban areas too have shown a decline from 48 per cent in the age group 40-44 to 25.8 per cent in the age group 15-19.

In the case of Pakistan, the National Impact Survey (1968) reported the median age of marriage to be 15.8 years for currently married women. The median age for urban areas was 15.9 years and for rural areas 15.6 years. Data from the Pakistan Fertility Survey (1975) show the mean age for first marriage for the whole PFS sample as 16.5 years. Here too age-specific data indicate that the mean age of marriage is rising.

Table 12: Percentage of Respondents First Married before Exact Age 13 (BFS 1975)

Age	Percentage married before age 13	
	Rural	Urban
15-19	33.1	25.8
20-24	47.2	25.2
25-29	50 0	22.0
30-34	58.2	40.3
35-39	58.7	49.3
40-44	61.7	48.0

Table 13: Age at Marriage by Current Age of Respondent (PFS 1975)

Current Age	Age at First Marriage
25-29	17.0
30-34	16.6
35-39	16.2
40-44	15.7
45-49	16.2

The general picture with regard to age of marriage in the subcontinent seems to be one of slow transition from very early ages of marriage for women to values of SMAM of around 15 to 17 years in the decade beginning with 1970. For males the average value of the SMAM is between 22 and 24. Males tend to marry at older ages than females though this difference has been reducing and is now around 5 years in India as against 6-8 years in Bangladesh, Pakistan and Afghanistan.

The values of SMAM calculated for census data from Sri Lanka show a steady rise for both males and females from 1901 to 1971 (Fernando 1975). The female SMAM in 1901 was already around 18 years as compared with 13 years in India. By 1971 the female SMAM in Sri Lanka had risen to over 23 years while it increased to a little over 17 years in India. The male SMAM in Sri Lanka rose from 24.6 in 1901 to 26 years in 1971. The difference between male and female SMAM values show a small reduction from 6.5 years at the beginning of the century to 4.5 years in 1971. The SMAM calculated for females from World Fertility Survey (1975) data is 25.1 years indicating that the rise in the age of marriage has not yet ceased.

Child Marriage

Considerations on the age of marriage in the Indian context must be inserted within the particular cultural context present in several states of India namely that the bride does not start living with her husband immediately after the formal marriage ceremony. There is often another ceremony—'return marriage' known as 'gaona' —which takes place. After this the bride goes to live with her husband. This practice is not uniform all over the country. Data from the NSS 11th round would indicate that the average interval between formal and return marriage is quite large for marriages taking place under age 15. Table 17 presents data based on two independent samples for the whole of India, both rural and urban.

Table 14: Average Interval (Months Between Formal and Return Marriage by Marriage Age of Wife)—Urban/Rural India (1957)

Age at formal Mar. / Area	Interval length in months: Under 15	15 and above	all ages
Rural	27.6	3.2	16.6
Urban	19.2	1.8	8.7

Source: NSS No. 54, *Vital Rates*

A survey was made in Haryana from August 1971 to March 1972 and the extent of child marriage was investigated in both rural and urban areas. Seventy villages and 35 urban blocks were covered and a total of 6,504 respondents were included in the sample (Mukherjee 1973). Child marriages are defined as those where boys are married before age 18 and girls before age 15. Table 18 shows that 43 per cent of the males were married before age 18 and 57.3 per cent of the girls before age 15 for rural areas. For the urban areas the percentages of child marriages were 18 per cent for males and 34 per cent for females.

Table 15: Number and Per Cent of Child Marriages in Haryana Survey (Urban/Rural)

Marriage type	Rural		Urban	
	Male	Female	Male	Female
All marriages	2264	2279	974	1011
Child marriages	979	1304	179	344
Per cent of total	43.3	57.3	18.4	34.0

In Haryana the custom of 'gaona' is prevalent and Table 16 shows the median age at marriage and consummation for both rural and urban areas. For males in rural areas there is a difference of about one year and a half between age of consummation and age of marriage, whereas for the urban areas the difference is a little over half a year. For females in urban areas the difference is also a little over half a year whereas for the rural areas it is over three years being 15.9 at consummation as against 12.6 at age of marriage. Similar results have been found in other areas showing that even when the pattern of child marriage is prevalent the age of consummation of marriage is close enough to the average age of marriage where such practices are not prevalent. This element will be reviewed later when the fertility implications of raising the age of marriage are discussed.

Table 16 : Median Age at Marriage and Consummation in Haryana and Interval Between (Rural/Urban)

	Rural		Urban	
	Male	Female	Male	Female
Median age at marriage (in years)	18.07	12.60	20.68	15.90
Median age at consummation	19.63	15.90	21.38	16.68
Interval between	1.56	3.30	.70	.78

Marriage rates

Census data of 1961 and 1971 have been used to construct nuptiality rates for the single population of India (Malaker 1973), Table 17 shows the Indian marriage rates for women single for the period 1961-71. The marriage rates are highest for single women in the age group 23-24 followed by the age group of 15-19 and 25-29.

Results from the NSS 7th Round show the highest marriage rates for both males and females at age groups 17 to 21—the marriage rate for men being .996 and for women .310 in this age group. These results are similar to those shown in Table 17, though the NSS data are presented in unconventional age groups (NSS 1954).

Table 17: Indian Marriage Rates per Women Single by Age, 1961-71

Age		Age	
10	.044	25	.187
11	.074	26	.173
12	.100	27	.161
13	.113	28	.150
14	.126	29	.139
15	.141	30	.130
16	.159	31	.115
17	.180	32	.110
18	.205	33	.106
19	.241	34	.093
20	.302	35	.081
21	.360	36	.070
22	.380	37	.062
23	.312	38	.055
24	.200	39	.049

Coale has constructed a 3 parameter (a_0,K,C) model corresponding to the origin of the curve which is approximately the earliest age at which a significant number of marriages take place, the time scale during which first marriages take place and the ultimate proportion ever married respectively (Coale 1971). The value of the 3 parameters have been calculated from the BRSFM data and used for the construction of a marriage model for Bangladesh females. These data as well as those calculated for the 1951 and 1961 censuses are shown in the table below. One sees that a slight increase in the value of a_0 corresponds to the initial stage showing a rise in the age of marriage. The value of K rises slightly in 1974 showing a greater spread in the age range of first marriages, whereas C remains practically the same indicating that universality remains a feature.

Table 18: Marriage Model and Parameter Values of BRSFM and other Data

Parameter	1974	1961	1951
a_0	11.9	10.0	10.6
K	0.40	0 33	0.31
C	0.996	0.999	0.998

Source: BRSFM (1977) Report

Table 19 presents the first marriage model of Bangladesh females on BRSFM data. The highest marriage rates are in the age group 15-19. A comparison with the Indian data (Table 17) shows that the marriage rate pattern in Bangladesh is somewhat younger than that in India and the spread of first marriage is restricted to younger age groups.

Table 19: First Marriage Model for Bangladesh Females (BRSFM 1974)

Age	Frequency of 1st Marriage	Age	Frequency of 1st Marriage
11	.000	20	.035
12	.027	21	.023
13	.104	22	.015
14	.177	23	.011
15	.188	24	.008
16	.155	25	.005
17	.112	26	.003
18	.078	27	.002
19	.053	28	.000

A study has been made at the national level to identify the socio-demographic factors linked with levels of age of marriage as well as marriage rates (Malaker 1975). The 1961 census data of India and regression analysis have been used with the following explanatory variables: percentage literate levels of economic activity, the ratio of single males (15-45 years) to single females (10-40 years) and the percentage of population living in urban areas. For males,

Table 20: Zero Order Correlations between Socio-Economic and Demographic Variables and Indicators of Nuptiality

Marriage Indicator	MALE					
	%M literate	%M.EA	% M in Agric	per-capita income	SM(15-45) (SF(10-40)	% living in urban areas
SMAM	.6820	—.5913	—.6709	.3416	.1050	.2690
Marriage rate of single males (20-40)	—.2060	.5276	.3489	—.1070	—.1570	—.0073

Marriage Indicator	FEMALE			
	%F	%F.EA	SM(15-45)	% living in urban areas
SMAM	.8224	—.2622	—.3540	.1468
Marriage rate of single females (15-35)	—.8157	.3774	.3150	—.1489

two additional explanatory variables were considered—'percentage of males in the Agricultural Labour Force' and 'per-capita income.' In the case of women regression analysis shows that these four variables are able to explain over 70 per cent of the variation (R^2) in the mean age of marriage. For males the analysis is less striking. The table presents zero order correlations between the indicators of nuptiality

and the explanatory variables mentioned. High correlation exists between the age of marriage and literacy for both males and females. Male nupitality is highly correlated with economic activity and labour force participation in agriculture of males. For females, besides literacy other variables as female economic activity and sex ratio were also important. The per cent of persons living in urban areas was not very important for both sexes.

PART II: EFFECTS OF NUPTIAL PATTERNS ON FERTILITY

The significance of age patterns on fertility has been discussed in the paper by Coale and Tye (1961). Their study indicates that the later child bearing pattern of the Chinese women in Singapore as compared to the Malaysian women accounted for low crude birth rate even though the GRR for the Chinese women was higher than that for the Malaysians.

In the Indian context there has been considerable discussion on the utility of raising the age at marriage as a means to reduce the birth rate. Several studies have been published attempting to show that raising the age at marriage could reduce birth rates from 10 to 30 per cent (Agarwala 1965; Basavarajappa and Belvalgidad 1967). The approach in this part will be to present data from the available studies showing that an increase in the age of marriage is linked with smaller completed family sizes. However, no claim is made that the reason for the decrease in family size is causally due to the rise in the age of marriage since other factors such as education, employment and socio-economic characteristics may be connected with the issue.

Fertility levels

Linkages between fertility levels in the sub-continent and marital patterns are not easy to formulate due to the lack of adequate data. In this section evidence is presented indicating a slight decline in fertility in both India and Bangladesh over the last decade. SRS data regarding birth rates presented in Table 21 show a fair constancy in the level of fertility-birth rates in the rural areas being around 39 per 1000 and in the urban areas around 30 per 1000. It is known that SRS data suffer from under-estimation. Total fertility rates for 1970-72 were estimated at 5.52 for rural areas.

Table 21: SRS Crude Birth Rates for India

Area	1970	1971	1972
Total	36.8	36.9	36.6
Rural	38.9	38.9	38.4
Urban	29.7	30.1	30.5

Source: Sample Registration Bulletin, 1975.

Studies made on census data for the decades 1951-1961 and 1961-1971 would indicate a modest deline in birth rates from around 44-45 per 1000 in the earlier decade (Visaria 1969), to about 41-42 per 1000 (Adlakha and Kirk 1974). Quasi-stable methods were used for the decade 1951-61 whereas the estimates for 1961-71 are based on 'reverse-survival' and 'forward projection' methods.

The percentage of women of the total female population in the child bearing ages 15-49 has declined from 23.85 to 22.86 in 1961 and 22.33 in 1971. An attempt to assess the impact of the change in age structure and marital status of the crude birth rate has been made by using a standardised age specific fertility schedule based on SRS data 1968-69 a djusted uniformly so as to produce a birth rate of 42 0 for data of the decade 1961-71. This schedule applied to the earlier decade, 1951-61, having a crude birth rate 45.0, shows that a decline of 1 point in the birth rate would have occurred due to changes in age structure and marital status though the independent impact of change due to martial status is negligible since changes due to age distribution alone would have reduced the birth rate by an amount slightly greater than when changes in both age and marital status are considered.

The remaining reduction of two points in the birth rate is attributed to changes in marital fertility. As a rough estimate it is claimed that two thirds of 7 to 10 per cent decline in birth rates from 45 to 42 per thousand, is due to change in marital fertility which would have declined by 5 to 7 per cent in 1961-71 as compared to earlier decades (Adlakha and Kirk 1974).

In the case of Bangladesh, vital registration systems even on a sampling basis, at the national level, do not exist in the country. Estimates of the crude birth rate for previous decades have been made using stable population theory (Khan 1972). Most of these estimates would indicate that birth rates over the last decades have been slightly over 50 per 1000. Recent estimates have been made based on data on the 1974 census (D'Souza and Rahman 1978). These estimates of the birth rates of Bangladesh are slightly over 47 per 1000 showing a small drop in fertility over the 13 years since the last census in 1961. Total fertility was estimated to be around 6.6 from 1974 census data as against estimates of 7.6 in 1961-62 from the Impact Survey.

The child/woman ratio (CWR)* provides a measure of the fertility level that can be estimated from a single census. Due to the under-enumeration in the age group 0-4 years and the influence of mortality, this measure is not very reliable. If, however, we make the assumption that the under-enumeration in this age group was of

$$^{*}CWR = \frac{P_{0\text{-}4} \text{ (number of children 0-4 years)}}{f_{15\text{-}19} \text{ (women 15-49 years)}} \times 1000$$

a similar order of magnitude in the 1974 and 1961 census, and that no drastic change in child mortality has taken place, comparison between the values of CWR in the two censuses would indicate whether a decline in fertility has taken place.

Table 22 provides estimates of the CWR for the four divisions of Bangladesh by urban and rural areas. While the decline in CWR values is small for 'all areas', a marked drop can be noticed for 'urban areas.' Further, decline is recorded everywhere except for the rural areas of Rajshahi Division. This would indicate that the 1974 level of fertility in the country, is in fact lower than the 1961 level (D'Souza and Rahman 1977).

Table 22: CWR Value for Bangladesh and Divisions by Area

Division	All areas		Urban		Rural	
	1974	1961	1974	1961	1974	1961
Dacca	843	870	759	866	855	870
Chittagong	822	830	769	830	826	830
Khulan	859	891	748	824	868	893
Rajshahi	885	887	739	880	893	887
Bangladesh	851	867	756	854	859	868

In India too child/woman ratios show a decline for urban areas from 617 in 1961 to 568 in 1971. Decline in rural areas has not been very significant. Improvement in infant and child mortality rates would of course mask the effect of decrease in fertility. The increase in the proportion singele in the age group 15-19 years was marked among urban women in the 1971 census (see Table 3). The decline in fertility could be related to a rise in the age of marriage though other factors could also be responsible since the rise in the age of marriage is shown to be correlated with literacy etc.

Table 23: Child/Woman Ratios for India 1971 (Urban & Rural)

Census Year	Urban	Rural	Total
1961	617	668	659
1971	568	663	644

Data from Sri Lanka indicate that the birth rate has fallen from 34.4 in 1963 to 30.1 in 1971. Standardisations on 1963, with regard to age distribution and marital status respectively, indicate opposite effects. The change in age structure would have caused an increase in the birth rate whereas the later pattern of marriage would have reduced it. Sixty-three per cent of the decline in the birth rate can be

attributed to changes in the structure of age and marital status whereas 37 per cent to a decline in the marital fertility rate (Fernando 1976).

Data from the 1975 World Fertility Survey in Sri Lanka indicate that between the years 1970-1974 a further decline in marital fertility rates has occurred especially in the age group 25-35 years. Under age 25 the change in marital fertility is small over the period 1963-74.

Age at marriage and fertility

The National Sample Survey (NSS) 16th Round (1960-61) collected data on the number of children according to the age of marriage. Table 24 below presents data for urban areas for women aged 42 years and above. The table shows the number of children declines from a high of 6.6 for women married before 17 years of age to an average of 4 children to women married after age 27 (Majumdar and Dasgupta 1969).

Table 24: NSS (16th Round)Completed Family—Size by Age at Marriage (Urban)

Family Size	Age at Marriage				
	Under 17	17-21	22-26	27 & above	All ages
	6.6	6.1	5.1	4.0	6.3
	(1,755)	(976)	(191)	(85)	(3,007)

The number in parentheses indicate number of women in sample,

The Mysore Study (1961) provides data showing that completed family size diminishes with a rise in the female age of marriage. Table 25 below shows that for urban areas the number of children to women married below age 14 is 6.7 as against 4.6 for women married after age and Dass Gupta 1969 14 is 6.5 as against 4.7 for women married between the ages 14-21.

Table 25: Mysore Study: Completed Family Size by Female Age at Marriage and Area

Age at Mar.	Completed Family Size			
Area	Below 14	14-17	18-21	22+
Urban	6.7	6.0	5.7	4.6
Rural	6.5	5.9	4.7	—

Data from the Registrar General's Survey (1960-61) also indicate that completed family size diminishes as female age of marriage increases. Table 26 below presents data for three states—Jammu and Kashmir, Punjab and Kerala. Data from urban and rural areas are fairly similar.

Table 26: Completed Family Size by Age at Marriage and States in India—Urban and Rural

State	Family Size	Below 18	Age at Marriage 18.22	23+	All Ages
Jammu & Kashmir	U	5.2	4.2	3.7	4.9
	R	5.1	4.2	3.2	4.7
Punjab	U	6.0	5.5	4.7	5.8
	R	5·7	5.2	4.4	5.5
Kerala	U	6.2	5.5	4.0	5.8
	R	6.2	5.5	3.9	6.0

Table 27 compares data from the BRSFM with Bangladesh census data of 1961 and 1974 on the average number of live births per ever married women for various age groups. While the results of the 1961 and 1974 censuses are similar, it should be noted that the recorded mean number of children is less in 1974 than in 1961 for women under 35 whereas for the older groups the 1974 census shows higher mean numbers. The effect of the increased age in marriage could have been responsible for this diminution in mean number of children Increased awareness and use of family planning methods could also have some effect though studies seem to indicate a very minor use of methods of family planning limitation in Bangladesh (D'Souza and Rahman 1978).

Table 27: Mean Live Births Per Ever Married Women: 1974 and 1961

Age group	BRSFM (1974)	Census (1961)	Census (1974)
15-19	0.57	0.77	0.67
20-24	1.94	2.24	1.91
25-29	3.52	3.51	3 29
30-34	4.94	4 64	4.58
35-39	5.88	5.24	5.49
40-44	6.21	5.49	5.70
45-49	6.11	5.74	5.85

Child marriage and fertility

The practice of child marriage as well as the custom of 'return marriage' has been referred to in an earlier section. Discussions on the effect of raising the age of marriage on fertility are thus complicated by the additional factor of delay between marriage and its consummation.

NSS data (1952) has been collected on intervals between age marriage to first birth. Some results are presented in Table 28 showing that women have diminishing intervals depending on age at marriage. For women married under age 15 the average age interval

was over 4 years whereas for women married after age 22 the mean intervals were a little over 2 years. Similar results were found in both urban and rural areas. Analysis of the effect of raising the age of marriage has to take into account this feature of Indian marriages that women who marry at an older age may tend to have their first child with shorter first intervals (Sarkar 1971).

Estimates have been made of the Net Reproduction Rate (NRR) under the assumption that all marriages take place at the singulate mean age at marriage for India data. It has been shown that the NRR would fall from 1.84 for women married at age 15 to 1.53 for those married at age 21 (Malaker 1972). The study shows that the effect of postponement of marriage is not important until a critical level is reached. If the mean age of marriage changes from 15 to 19 years the CRR, NRR and TFR decrease by about 10 per cent.

Table 28: Average Interval (months) ta First Birth by Wife's Age at Marriage and Rural-Urban Sector of Hindu Couples married after 1930 (1959 Survey)

Wife's age at marriage	Average Interval	
	Rural	Urban
1	2	3
0-5	148.0	164 1
6-11	90.4	88.7
12-14	50 2	49 6
15-16	38.3	37 9
17-21	33.5	31.0
22-26	27 2	27.0
27 and above	29.4	29 4

Widowhood, divorce and fertility

It has in general been believed that widows are not permitted to remarry in India. Estimates have been made on the reduction of fertility due to this factor. In the case of Hindus, Davis estimates fertility reduction as 17 per cent in 1901 and 1921, 15 per cent in 1911, 14 per cent in 1931 and 13 per cent in 1941. For Muslims the reduction in fertility is estimated to be around 11 per cent for 1901 to 21 dropping to 9.6 per cent in 1931 and 7 per cent in 1941 (Davis 1951). Surveys in rural Maharashtra have shown that the ban on remarriage exists among the higher castes but this forms a small percentage of the population. Remarriage of widows among other castes is common for widows having no children or less than three children. An estimate of 6 per cent increase in fertility due to the fall in widowhood is cited (Dandekar 1974). Another study made in Madhya Pradesh in three villages confirms the finding that the higher castes disfavour

widow remarriage whereas the other castes find no problem with it. Where practice of 'bride price' are present the remarriage of a widow is an economic gain to a father on the one hand and to the widower, on the other, since lower prices are paid for widows. The widower also finds a partner to do much needed chores in the home and field (Dubey 1965).

Comparison of the number of women in the age group 15-44 with those currently married in the same age group would indicate that the percentage increase in total number of women in this group was greater (21.1 per cent) than the increase in the number of currently married women (19.3 per cent) during the decade 1961-71. The percentage of currently married women in this age group declined from 85.7 per cent in 1961 to 84.5 per cent in 1971. The fall in urban areas was more significant, being 81.2 per cent in 1961 and 76.8 per cent in 1971. The effect of declining incidence of widowhood which would have tended to increase the proportion of currently married women has been less than the effect of the increase in the age of marriage which works in the opposite direction (Visaria and Jain 1976). The general effect of remarriage of widows does not effect in a major way the levels of fertility in the country as a whole.

Data from a rural in Bangladesh show that 1.8 per cent of all brides have current marital status 'widowed' (CRL 1978). Coupled with the fact of low probabilities of remarriage after age 30 the effect of widow remarriage on fertility is not significant in Bangladesh. The effect of remarriage of divorcees has more important fertility implications since between 15 to 17 per cent of brides have current marital status 'divorced.' The average age at remarriage is around 20 years. However, since childlessness is often the cause of divorce for young women the fertility of the sub group of 'divorced' who remarry is presumably lower than average. In India owing to the small percentage of divorcees, the effect of remarriage would not make a serious impact on fertility.

Role of literacy

It has been shown earlier that high correlations exist between age of marriage and percentage literate for both males and females. Data in Table 29 for both rural and urban areas in India indicate that there is a distinct drop in fertility for women having education higher than the matric level. Women who are literate appear to have slightly higher rates than illiterate women but this could be due to better reporting of women who are literate.

Similar results have been found in Bangladesh. The 1974 census data shown in Table 30 indieate that the effect of primary education does not seem to make a a substantial difference in fertility.

Table 29: Differential Fertility by Education of Wife in Rural and Urban India (1972)

	Total Material Fertility Rates		Standardised General Material Fertility Rates	
	Rural	Urban	Rural	Urban
Illiterate	6.9	6.3	219.0	196.2
Literate but below matric	7.1	5.0	224.4	195.1
Matric and above	5.0	4.5	173.1	145.6

Source: Registrar General (1972)

In fact the reported number of children with primary education is 6.11 cómpared to 5.28 for women with no schooling. Secondary education does have a slight depressing effect on fertility—the average being 5.65 children for all areas.

Table 30: Reported Average Number of Children Born Alive to Ever Married Women (45 years and over)

Educationol level	Average number of live births/woman		
	All areas	Urban	Rural
No school	5.28	4.44	5.33
Primary	6.11	5.65	6.20
Secondary & over	5.65	5.34	5.93
Not reported	5.50	4.93	5.61

For Indian and Bangladesh rural fertility is higher than in urban areas. The data would indicate that there is severe under-reporting of children in the Bangladesh data, since total fertility is estimated to be around 6.6 from the 1974 census data.

The case of Kerala

Kerala has often been cited as an example where the higher age of marriage has not brought down the fertility, in spite of having high female literacy rates in the country. Data from a survey in 1962 did not indicate a significantly lower birth rate in Kerala than in India (Tampi 1964). Recent years however have shown that the effect of rising age of marriage on fertility should not be considered as a mere reduction in the physical reproductive capacity of women. It is obvious that the reproductive period remains long enough to have a large number of live births. What is more important is the fact that the higher age of marriage, which goes along with the higher level of education, often implies a motivational change with regard to family size. Literacy rates in Kerala—54.31 per cent for females and 66.62

per cent for males—are the highest for an Indian State. The literacy rates for India are 18.70 per cent for females and 39.45 per cent for males. Health standards in Kerala are also some of the highest in India. The crude death rates in Kerala fell to under 10 per 1000 after the year 1970, whereas for the whole of India it remained around 16 per 1000.

The Sample Registration System on birth and death rates over 1968-73 are presented in Table 31. One sees that the birth rate has been declining steadily over the five years so that the total fertility rate of women in rural Kerala fell from 4.3 per cent in 1969 to 3.8 in 1973. A corresponding All India rate for 1962 was 5.6 per cent (Gulati 1976)

Table 31: Birth and Death Rates 1968-73

Year	Kerala		India	
	Births per 1000 Population	Deaths per 1000 Population	Births per 1000 Population	Deaths per 1000 Population
1	2	3	4	5
1968 (Rural)	34.3	10.4	39.0	16.8
1970 (Rural & Urban combined)	32.1	9.2	36.8	15.7
1971 (R & U combined)	31.6	9 1	36.9	14.9
1972 (R & U combined)	31.7	9.1	36.6	16.9
1973 (Rural)	29 9	8.7	34.6	15.5

Relative differences noted in the Registrar General's Survey (1960-61) between the child bearing performance of marriage cohorts consisting of women married before age 18, those between age 18-22 years, and finally the group married after 22 years of age can be seen

Table 32: Ratio of Number of Children in Adjacent Groups in Rural Kerala by Age of Women at Marriage and Duration

Duration in years	Age at Marriage		
	Below 18	18-22	23+
1-4	77	100	96
5-9	96	100	87
10-14	101	100	85
15-19	102	100	82
20-24	110	100	71
25-29	111	100	74
30+	118	100	76

from the table. The ratio of the number of children born to women in an adjacent age group to that in the age group 18-22 years assumed to be 100 is presented by duration of marriage.

One notices that in the first 10 years of marriage those married under 18 years of age have a lower child bearing performance as compared to those in the age group 18-22 years. After 10 years of marriage however, they have a much higher ratio. For the group married at 23 years and over, performance of child bearing is lower for all durations. Though in the early sixties the birth rates in Kerala were not much lower than the rest of India, the particular pattern of fewer children to women marrying later was already established.

A particular characteristic in Kerala is the high rate of migration of young men and women—specifically in the reproductive age group—to other states in India as well as the Middle-East countries for employment. Female economic levels in Kerala have shown a decreasing tendency over the various censuses. Some definitional problems in terms of economic activity is responsible, though the trends are clear enough (United Nations 1975). This is due to a lack of adequate employment opportunities within the state itself. A large segment of the population including women is finding employment outside the state. This often involves temporary separation of spouses. It is against this background that the rise in age of marriage must be considered namely, that its impact on fertility may not be direct, but when accompanied by such welfare facilities as education, health care and better socio-economic opportunities for women, fertility does decline. Some success of the family planning programmes may also be responsible and crucial to this decrease is the particular status of women in Kerala, even before the impact of the various social welfare improvements. Matrilineal traditions have been quite important in the state.

Summary and conclusions

The picture, that emerges from the examples of the various data sets regarding nuptiality and fertility, is fairly clear with regard to nuptiality but remains somewhat imprecise with regard to the fertility implications. The general characteristics of nuptial patterns in the sub-continent have persisted over the last century, with regard to early marriage, a large number of widows and universality. The first two characteristics do show some sign of change. The age of marriage estimates indicate a small rise. This rise coupled with improving health conditions have created conditions favourable to the diminution in the number of widows. The characteristic of universality of marriage remains unchanged.

The measurement of the effect on fertility of such changes in marital patterns is difficult to assess because of the lack of adequate data. The capacity to separate the various factors effecting fertility

including change of nuptial patterns, is not easy. In this paper the impact of family planning programmes in the sub-continent has not been dealt with. On the whole these programmes have not been very successful in India. In Bangladesh too, studies would indicate results the government family planning programmes have not had significant (Sirageldin *at al* 1975). One cannot however exclude a general awareness having been created as a result of such programmes so that when women attain higher levels of literacy they may be inclined to limit their family sizes. Due to particular elements present in the family planning programmes during the emergency in India there has been a general slackening in the programmes all over the country. This is due to the backlash occurring due to the use of force and compulsory sterilisation practised during that period.

This study has restricted itself to India and Bangladesh. Examples from other South Asian countries have been occasionally given On the whole nuptiality patterns for Pakistan and Afghanistan fit in the general picture of the sub-continent. These areas like India and Bangladesh, have high fertility levels. With regard to Sri Lanka the situation is extremely different since a pattern of late marriages has installed itself with important fertility implications. To a certain extent the case of Kerala possesses similar elements as the Sri Lanka pattern. Data from Bhutan and Nepal have not been available for this study, Since the religious predominance of Hinduism and Buddhism is very much part of their culture and economic levels and health standards are low, vital rates there would not be very different from the sub-continent pattern except probably for high infant mortality. The mean age at marriage according to the Nepal Fertility Survey (1976) data was 17.1 years for Buddhist women, 15 years for Hindu women, and 14 2 years for Muslim women.

The basic data source for this study has been the census data and surveys undertaken on the national level. The quality of such data especially with regard to some characteristics such as age, leaves much to be desired. The Whipple's Index which assesses the accuracy of age data would indicate that data for Bangladesh and India are classified in the 'very rough' category. Estimates of fertility have been made on the basis of indirect estimation procedures. These procedures imply assumptions of stability which may not be necessarily fulfilled in the sub-continent especially during the past few years. Other estimates based on 'reverse survival methods' are susceptible to the types of under-estimation that occur at the age group 0-4 and 5-9 years. It is against this background that much of the results have an indicative rather than definitive nature.

Among technical devices, constant recourse has been made to the Hajnal method for estimating the SMAM. This method is sensi-

tive to age groupings. As data on female age and marital status especially in the 10-14 and 16-19 age groups are not always reliable small shifts in age at marriage may not be genuine and may in fact be due to the poor quality of the data The general picture in the sub-continent is that a small rise in the age of marriage has taken place. An attempt has been made to assess the effect of the rise in the age of marriage on fertility levels. Since the age of marriage is correlated with several other variables, data has been presented showing that the family size decreases with the rise in the age of marriage but no claim has been made that this rise has a casual effect on fertility.

Practices like 'child marriage' are still prevalent and data in the previous sections have shown that their effect on fertility is mitigated due to the practice of 'return marriage.' The general picture from 'age at marriage' studies would indicate that a certain critical level should be reached before an important decline in fertility can be expected. The effect of remarriage of widows and divorcees on fertility has been shown to be small.

For the major portion of the sub-continent fertility practices would still fit into Henry's concept of 'natural fertility.' Within this framework patterns of nuptiality become crucial to the levels of fertility. It has been shown that marital fertility rates are not particularly high in India (1961) as compared to Sweden at the end of the last century (Kumar 1971). The major difference was the early age and universal pattern of marriage in India as against the later marrying practices and important proportions remaining single in Sweden characteristic of the 'European pattern' of Hajnal referred in Part I.

Indices have been developed by Coale (1965), I_m, I_g, I_f, which link nuptiality with fertility levels. The Index I_m corresponds to a weighted nuptiality measure. I_g represents a marital fertility measure standardised by age and I_f is a weighted measure of general fertility. Under the assumption that illegitimate births are not frequent these measures are related by the equation $I_f = I_m, I_g$. These indices have been found useful to assess trends in various historical data. Due to

Table 33: Values of I_m, I_g, I_f, for Bangaladesh 1974 and India 1961 and 1971.

		I_m	I_g	I_f	CBR Used
Bangladesh	1974	.890	.734	.653	47
India	1961	.870	.582	.506	45
India	1971	.868	.566	.491	42

*D'Souza and Rahman (1978)

**Adhlakha and Jain (1974)

the lack of vital registration systems in the sub-continent this approach has not been directly possible. For Bangladesh 1974, India 1961 and

1971, the use of total number of births for fertility levels estimated from models has permitted the estimation of these parameters. Table 33 provides values of I_m, I_g, I_f, for Bangladesh and India.

From the table, one notices that the three values of I_m are fairly close—the highest value being that of Bangladesh were I_m=.890. This is not surprising in view of the universality of marriages in the sub-continent, with marriage rates in Bangladesh having a slightly younger pattern (of. Tables 17 and 19). Values of I_g however show a marked difference, being much higher in Bangladesh than in India. The Indian rates show a decline from .582 in 1961 to .565 in 1971. The difference between the Indian and Bangladesh values are due to lower marital fertility rates in India as compared to Bangladesh. Table 34 provides data on age specific marital fertility rates for Bangladesh (1975), India (1969) and the Hutterites. One notices the higher values of Bangladesh rates in the early child bearing period till age 30. Hutterite rates are considerably higher at all age groups.

The Bangladesh I_g value of .734 is very similar to that of the value of I_g in Spain during the decade 1787-1798. On the other hand, the Indian value of .566 in 1971 corresponds to the Spanish I_g value in 1860 (Livi Bacci 1968). One would thus be inclined to speculate that some of the questions raised in Livi Bacci's paper about the various levels of 'natural fertility' might in fact be present within the Indian context. Though India has not yet achieved countrywide social or economic modernisation some fertility decline has taken place.

Table 34: Age Specific Marital Fertility Rates for India (1969), Bangladesh (1975) and Hutterites (Legitimate Fertility)

Age group	India (1969)	Bangladesh (1975)	Hutterites
15-19	.140	.269	.300
20-24	.283	.343	.550
25-29	.283	.304	.502
30-34	.247	.237	.447
35-39	.181	.153	.406
40-44	.098	.069	.222
45-49	.050	.022	.061

Sources: Registrar General (1972 b); BFS (1975)

The case of Kerala has shown that an important fertility decline has taken place in a context of low levels of economic development. High literacy rates for women and generalised health care systems in a setting of raised social status of women appear to be as important for the fertility decline as the rise in the age of marriage. This study has not gone into aspects of fertility that are important in the sub-continent such as the desire of a male child or the

perception of large families as beneficial at the micro-level as against a macro-level nation-wide need of population. The study of the case of Kerala could be important in the understanding of new patterns of correlates and determinants of nuptiality which could bring into play the factors required for the decline in fertility that sub-continent planners have so far striven for in vain. Legislation such as the Sarda Act has not proved effective in raising the age at marriage. A global educational programme—not restricted to population education alone—should be embarked upon. The present Indian government's 'National Adult Education Programme' may be a step in the right direction.

REFERENCES

Adlakha, A. and Kirk, D. 1974. Vital Rates in India 1961-71 Estimated from 1971 Census Data. Population Studies 28:381-400.

Afghan Demographic Studies 1975. National Demo graphic and Family Guidance Survey of the Settled Population of Afghanistan. Government of Afghanistan.

Agarwala, S.N. 1960. Age at Marriage in India. Kitab Mahal Pvt. Ltd.

——— 1965. Effect of a Rise in Female Marriage on Birth Rate in India. World Population Conference. Vol 2 172 (summary).

Bacci, M. Livi. 1968. Fertility and Nuptiality Changes in Spain from the Late 18th to the early 20th Century. Population Studies 22, 1: 83-102.

Bangladesh Population Census Report 1974. National Volume. Bangladesh Bureau of Statistics. Statistical Division. Ministry of Planning.

Bangladesh Fertility Survey 1975. First Report. Ministry of Health and Family Planning. Dacca, Bangladesh.

Bangladesh Retrospective Survey on Fertility and Mortality Report 1974. Census Commission. Statistics Division. Ministry of Planning. Dacca, 1977.

Basavarajappa, K G and Belvalgidad, M.I. 1967. Changes in Age at Marriage of Females and their Effect on the Birth Rate in India. Eugenics Quarterly, 14(1).

Cholera Research Laboratory 1978. Vital Events. Migration and Marriages—1976. DSS Matlab Vol. 5 Dacca, Bangladesh.

Coale, A.J. 1965. Factors Associated with the Development of Low Fertility: An Historic Summary. n. 194: World Population Conference, Balgrade, United Nations, New York.

——— 1971. Age Patterns of Marriage. Population Studies 25. 2: 193-214.

Coale, A.J. and Tye, C.Y. 1961. Significance of Age Patterns of Fertility in Higher Fertility Populations. Milbank Memorial Fund Quarterly 39.4: 631-646.

Dandekar, K. 1974. Fertility, its Control and Future Prospects, pp. 304-342 in Ashish Bose, P.B. Desai, A. Mitra and J.N. Sharma (eds.), Population in India's Development 1947-2000. New Delhi.

Das, N.C. and Bhattacharya, N. 1977. National Sample Surveys: An Appraisal of Demographic Data, pp. 38-62 in Ashish Bose, D.B. Gupta, G. Raychaudhuri (eds.), Population Statistics in India. New Delhi.

Davis, Kingsley. 1951. Population of India and Pakistan. Princeton University Press.

D'Souza, S. and Rahman, S. 1977. Intercensal Growth Rates in Bangladesh. Social Action 27. 1: 1-18.

——— 1978. Estimates of Fertility in Bangladesh. Social Action 28. 4: 336-390.

Dubey, B.R. 1965. Widow Remarriages in Madhya Pradesh. Man in India 45. 1: 50-56.

Fernando, D F.S. 1975. Changing Nuptiality Patterns in Sri Lanka 1970-1971. Population Studies 29: 179-190.

——— 1976. Fertility Trends in Sri Lanka and Future Prospects. Journal of Biosocial Sciences 8: 35-43.

Goyal, R.P. 1975. Shifts in Age at Marriage in India between 1961-71. Demography India VI.2: 336-344.

Gulati, L. 1976. Age of Marriage of Women and Publication Growth: The Kerala Experience. Economic and Political Weekly XI. 31-33: 1225-1252.

Hajnal, J. 1953. Age at Marriage and Proportions Marrying. Population Studies 7. 2 : 111-137.

——— 1965. European Marriage Patterns in Perspective, pp. 101-143 in David V. Glass and D.E.C. Eversley (eds.), Population in History. Chicago.

Jain, S.P. 1964. Indian Fertility: Our Knowledge and Gaps. Journal of Family Welfare 1. X(4) : 16032.

——— 1975. A Status Study on Population Research in India. Vol. II. New Delhi.

Khan, M.R. 1972 Demographic Profile of Bangladesh. Paper Presented at the Bangladesh National Family Planning Service, Dacca.

Kumar, J. 1971. A Comparison between Current Indian Fertility and Late Nineteenth Century Swedish and Finnish Fertility. Population Studies 25. 2: 269-282.

Lal, R.B. and Swamy, V.S. 1977. Vital Statistics: Sample Registration System, pp. 63-69 in Ashish Bose, D.B, Gupta, G. Raychaudhury (eds.), Population Statistics in India. New Delhi.

Majumdar M. and Dasgupta, A 1969. Marriage Trends and Their Demographic Implications. Sankhya Series B 31. Parts 3 and 4: 491-500.

Malaker, C.R. 1972. Female Age at Marriage and the Birth Rate in India Social Biology 19. 297-301.

——— 1973. Some Implications of Nuptiality Rates for the Single Population of India 1961-71. Demography India II.2 : 231-237.

——— 1975. Socio-economic and Demographic Correlates of Marriage Patterns in India. Demography India IV. 2: 323-324.

Natarajan, D. 1972. Age and Marital Status Census Centenary Monograph No. 8 Census of India 1971 Office of the Registrar General. India

Nepal Fertility Survey 1976, First Report. Health Ministry, Kathmandu, Nepal. August 1977.

NSS Number 54. 1962. Vital Rates Government of India.

Pakistan Fertility Survey 1975. First Report. Population Planning Council of Pakistan, Islamabad, Pakistan.

Rao, P.V. and Sudarsen, V. 1971. Continuity and Change in Marital Choices: A Note on Matrimonial Advertisements in South India. Social Action 28. 1: 50-61.

Registrar General. 1972a. Fertility Differentials in India. Ministry of Home Affairs. New Delhi, India.

———1972b. Pocket Book of Population Statistics. New Delhi, India.

——— 1975. Sample Registration Bulletin IX.3. Ministry of Home Affairs. New Delhi, India.

Social Welfare Report of the Committee, 1974. Status of Women in India. Department of Social Welfare. Government of India.

Sadiq, N.M. 1965. Estimates of Nuptiality and its Analysis from the Census Data of Pakistan. Paktstan Development Review V. 2: 229-248.

Sarkar, B.N. 1971. Studies on Age at Marriage. Indian Statistical Institute Technical Report No. DEMO/9/71.

Sirageldin, I. Norris D. and Ahmed, M. 1975. Fertility in Bangladesh: Facts and Fancies. Population Studies 29. 2: 207-215.

Tampi, N.K. 1964. Birth Rate and Age at Marriage. Journal of Family Welfare XI(I) 60.

United Nations, 1961. The Mysore Population Study. ST/60A/Series A/34.

——— 1975. Poverty, Unemployment and Development Policy: A Case of Selected Issues with Reference to Kerala. ST/ESA/29.

Visaria, P. 1969. Mortality and Fertility in India 1951-61. Milbank Memorial Fund Quarterly 47. Part 1: 91-116.

Visaria, P. and Jain, A.K. 1976. India, Country Profiles. Publication of the Population Council, May 1976.

World Fertility Survey, Sri Lanka, 1975. First Report. Department of Census and Statistics. Ministry of Plan Implementation, March 1978.

Health Education Evaluation and Beliefs and Practices in Rural Tamil Nadu—2: Family Planning and Antenatal Care

C. M. E. Matthews
V. Benjamin

This paper which reports on the effect of health services in Kanniambadi block is a continuation of a previous paper on knowledge, attitude and practice surveys in three blocks in North Arcot District, Tamil Nadu. It was found that knowledge of family planning is very poor, especially for temporary methods, even in the service area. However both attitudes and practice showed a definite improvement in the service area For antenatal care also knowledge was poor, with only slight improvement in the service area, but both attitudes and practice were considerably better in the service area. The influence of different factors on family planning acceptance is discussed, and also the implications for health education More use of group methods, and more education about temporary methods is recommended, as well as close linkage between health and development programmes.

The present paper is a continuation of a previous paper* reporting on a knowledge, attitude and practice survey in three blocks in North Arcot District, Tamil Nadu. One block, Kanniambadi, was divided into three areas: *A*—long service area; *B*—short service area; and *C*—control area, according to the Christian Medical College (CMC) services given in each area. The other two blocks were Anaicut, area *D*, and K.V. Kuppam, area *E*.

Dr C. M. E. Matthews is Director, Health and Nutrition, YMCA Tribal Development Project, Yellagiri Hills, Tamil Nadu; Dr V. Benjamin is in the Department of Community Health, and Associate Director, Christian Medical College, Vellore. [An earlier paper, 'Health Education Evaluation and Beliefs and Practices in Rural Tamil Nadu,' *Social Action*, 29 (n.2 April-June 1979), pp. 115-149, was by C. M. E. Matthews and V. Benjamin However, the name of Dr Benjamin was inadvertently omitted. The error is regretted. *Editor*.]

*C. M. E. Matthews and V. Benjamin, 'Health Education Evaluation and Beliefs and Practices in Rural Tamil Nadu,' *Social Action*, 29 (n. 2. April-June 1979), pp. 115-149.

The methods and details of services in each area have already been given in the first paper in the series. Government services of course were present throughout all areas. The C.M.C. services in areas *A* and *B* consisted mainly of daily visit by the public health nurses who gave primary care and visited the homes. As well as this, maternal and child health clinics were held in some villages, and also occasional leaders' meetings and film shows. Medical students and interns also visited the villages. Family planning education was mainly through home visits by two field workers and cases were referred to the C.M.C. Rural Hospital close to area *A*.

In area *E*, there was only a C M.C. service in one part of the Block, covering about 10,000 population and, in area *D*, only a mobile clinic once a week in two places up to 1973.

Questions on antenatal care were asked only of women respondents.

Although there have been many KAP studies in the field of family planning, it seems that few of them actually measure knowledge rather than merely awareness, and also few use a properly constructed attitude scale. There are not many questions which really probe the respondents understanding of the different methods, and most family planning workers seem to concentrate on persuading people to accept rather than helping them to make a real choice based on understanding of the different possibilities For most educational programmes the cognitive factors are emphasised almost to the exclusion of motivational and action factors, but for family planning the reverse seems to be true. The cognitive ambiquity leads to the spread of many false rumours and gives rise to much fear in the general public.

Results

Family planning

Results are shown in Tables 1-7 Results for areas *A*,*B* and *C* are shown only when there is a significant difference between service area *A* and control area, in order to simplify the tables. Most results in areas *A*, *B* and *C* were similar to those in areas *D* and *E* except where otherwise specified.

With regard to preferred family size, in Anaicut Block(Area *D*) about half prefer 3 children or less and half 4 or more, whereas in K.V. Kuppam Block (*Area E*) more than half prefer 3 or less. Areas *A* and *B* were similar to area *D*, and area *C* between areas *D* and *E*.

For spacing (Table 2), most prefer 3 years or more, generally for the health of child and/or mother. For temporary methods (Table 3) the most popular is 'self control,' and many do not know. Only a very few mention family planning methods. In area *A* fewer mention

self-control (difference is significant p. $<.01$) and more mention the loop (difference is not significant). For permanent methods 60-71 per cent mention sterilisation, although some again say self-control.

When asked 'What is family planning'? most say that it prevents or limits the number of children (Table 4). About half know about sterilisation. When asked about the different methods very few can give a satisfactory explanation and most do not know.

Vasectomy. About 33 per cent in area *D* and 47 per cent in area *E* described it as 'cutting the nerve,' and a few others said 'operation for men.' About half did not know.

Tubectomy. Twenty-six per cent in area *D* and 41 per cent in Area *E* described it as 'twisting the uterus,' or 'turning it upside down.' Again about half did not know.

Loop. Ninety-three per cent in area *D* and 87 per cent in area *E* did not know about it. A few said it was used by women.

Condom. Eighty-nine per cent in area *D* and 83 per cent in area *E* did not know about it. A few only said it was used by men, or that it was a rubber tube or sheath.

Contraceptive pill. Ninety-one per cent in both areas did not know about it. A few thought it was for abortion.

Safe period. Only 9 per cent in area *D* and 8 per cent in area *E* knew of such a period. Even of those who know, only a negligible number knew the correct time. Many think that it is 10-15 days after menstruation which may in fact overlap with the most probable time for conception.

Results in areas *A*, *B* and *C* were similar for knowledge of methods, except that a few more in area *A* knew about the existence of the safe period (difference is significant, $p<.01$). However they did not have any better knowledge of the correct time.

When asked whether each method was good or bad, more said bad than good for most methods. For vasectomy about 20 per cent said it was good and about 60 per cent said it was bad. For tubectomy respondents were a little more favourable, about 33 per cent said it was good and about 45 per cent said it was bad; the small number who knew what the loop is, were about equally divided in considering it good or bad. Only the condom and contraceptive pill were considered good more often than bad by the few respondents who knew about these methods. Reasons given for considering methods bad were usually bad effect on health or inability to work hard, or that some die. Reasons for considering methods good were that they prevent childbirth, or that there are no complications.

Results in areas *A*,*B* and *C* were mostly similar to those in areas *D* and *E* except that in area *A*, 62 per cent thought that tubectomy is good (difference is highly significant, $p<.001$); 34 per cent

thought that vasectomy is good (difference probably significant, $p<.05$) and 11 per cent thought oral pills to be good (difference significant, $p<.01$). For the loop more in area *A* thought it was good (probably significant, $p<.05$), but also more thought it was bad with fewer who did not know. Thus, on the whole, opinion of the methods is more favourable in area *A*.

The opinions of husbands and wives and elders in the families of respondents is given in Table 5. In areas *C*, *D* and *E* more think that it is bad than think it is good; however, in the service areas *A* and *B* the reverse is true. This difference between area *A* and *C* is highly significant ($p<.001$).

Reported use of methods is given in Table 6. Only 8.5 per cent in area *E* admit to having used any method. The percentage of those reporting use is higher in area *A*, i.e., 20 per cent, and the difference between areas *A* and *C* is probably significant ($p<.05$). The actual acceptance for areas *A*, *B* and *C* is also given in Table 6 and agrees well with reported acceptance. When the few who say they have used any method are asked about the advantages and disadvantages of the methods, replies are similar to those given to the previous question about this.

Only 7.1 per cent in area *D* and 7.0 per cent in area *E* say they will use any method in future. Only 22 per cent in area *D* and 26 per cent in area *E* would like to know more about the methods.

Antenatal care

The results are shown in Tables 7-12. The average number of pregnancies per woman was 4.8-4.9 and live births 4.5-4.6. The average number of still births was 72 to 85 per 1,000 women, and abortions 250-160 per 1,000 women. The number of children who died was 1.26 to 1.21 per women, and children alive 3.26-3.41 per woman. Many of the deaths were thought to be caused by fever, *dhosham*, *sevappu*, diarrohea, *ammai* (goddess) or evil spirit. It is interesting that, except for fever, these are just the diseases for which allopathic treatement is least sought.* One might conclude that babies die because allopathic treatment is not sought because of the beliefs, but it may equally be true that allopathic treatment has proved ineffective for such diseases *in their experience* and hence they resort to traditional methods. The reasons for the treatment not being effective have already been discussed, and probably the main reason is lack of communication.

Most of the children who died were under 5 years, and of these most were under 1 year (Table 7). More women in the service area *A* attribute their child's death to *ammai* (chicken-pox, measles,

*See our earlier paper, *op. cit.*

small-pox etc.), and this difference is highly significant ($p<.001$). The reason for this is not clear.

Only 9 to 10 per cent delivered at the hospital, Primary Health Centre or sub-centre, and the rest delivered at home. Only 15-17 per cent were attended by doctor or nurse and the rest by untrained mid-wife or relative (Table 8). In the service area *A* more have had deliveries in hospital, Primary Health Centre or sub-centre, but this difference is not significant.

Less than one-fifth said that they see a doctor, nurse or mid-wife when pregnant (Table 9), slightly more in area *E*, K. V. Kuppam Block do so. In the service area considerably more do so and the difference is highly significant ($p<.001$). Only a few mentioned having any of the possible complications of pregnancy (Table 10). Most do not eat anything extra or avoid any food during pregnancy (Table 11). In area *A* fewer avoid particular foods (difference probably significant, $p<.05$). Most did not think that inadequate food during pregnancy would affect the baby (Table 12), in areas *D* and *E*, but in area *A* and *B* most said that it would do so (difference between area *A* and *C* highly significant, $p<.001$). It seems that much education is needed about antenatal care.

Attitudes

The results are shown in Table 13 and 14. Attitudes towards both family planning and antenatal cere are negative in areas *D* and *E*, and are more negative in area *D* than in area *E* (difference highly significant, $p<.001$). They are positive in area *C* and considerably more positive in area *A*. The difference between areas *A* and *C* is highly significant ($p<.001$) for antenatal care, and probably significant ($p<.05$) for family planning. The difference between area *A* and areas *D* and *E* are highly significant ($p<.001$) for both antenatal care and family planning, Table 14 shows the attitudes in different parts of area *A*. For family planning Edayanchat has a highly significantly more positive attitude ($p<.001$). For antenatal care there is no significant difference.

Discussion

Many people still seem to want more than three children but most appreciate the value of spacing. Paradoxically there is hardly any knowledge of temporary methods of family planning, but some knowledge of permanent methods. However, for permanent methods there is much misunderstanding about the nature of the operation. There is much fear of the effects on health and ability to work. Elders tend to be more against family planning than heads of households or their wives. Attitudes to family planning are negative.

Acceptance of family planning is better in the service area, and attitudes more positive, but there is not much difference in knowledge. More real understanding of the methods might help to reduce wrong ideas and rumours which lead to fear of the methods. The higher acceptance in area *A* may be due to the effect of admissions in the Rural Health Centre for delivery. (In a previous study it was found that hospitals had a significant effect on acceptance [Matthews 1978, 1975]).

Only very few have antenatal care and attitudes towards it are negative. Most do not eat anything extra during pregnancy, and do not feel that lack of food at this time will harm the baby. However, a considerable improvement in attitude, some improvement in knowledge, and some improvement in reported practice in seeking antenatal care was found. Antenatal care is given much emphasis by the nurses, and since maternal and child health clinics are held in the village, it does not require a very great effort to participate.

It is not possible here to review the extensive literature on family planning knowledge, attitudes, and practice. Only a few particularly relevant papers will be mentioned and some studies carried out in the same area. However it may be noted that even in 1968, many of the conclusions mentioned in this paper had already been reached and are set out in a extensive review of family planning studies (Gopal Rao 1968). Gopal Rao mentions the lack of specific knowledge, the need to use group methods and to work through leaders, and the need to give more emphasis to spacing and temporary methods. However 10 years later it seems that most of these needs have still not been met.

An unpublished family planning study in Kanniambadi Block (Benjamin *et al.* 1970) indicated also that there was little real understanding of the methods, of which most people are only just aware. Similar results were found in an intensive study in one village in K. V. Kuppam Block (Matthews 1979). Other reasons for the lack of acceptance of family planning methods have been discussed in a previous publication (Matthews 1975). The fear that children will not survive is also an important factor (Wyon and Gordon 1971; Chandrasekhar 1972). Economic and social factors are also of great importance. It has been shown that considerable differences in fertility patterns for different castes may occur (Mahadevan Pillai and Namboothiri 1972). Strong and stable caste norms exist. Highest castes may adopt family planning to prevent subdivision of land but, for lower castes who have little property and whose only source of income is their labour, a large family often seems more advantageous (Matthews 1975). Only as income increases, the cost of having an extra child is perceived to rise, since only then people want more 'high-

quality' children —e.g., more educated, and better fed and clothed (Leibenstein 1957). Only when 'utility' of a child falls and perceived cost rises will such people be motivated to have fewer children. Therefore a family planning project might be more successful if combined with a project for economic development.

Djurfeldt and Lindberg (1972) find an increasing number of births per wife for increasing amount of land owned in one village in Chingleput district. This conflicts with the findings of Mahadevan Pillai and Namboothiri (1972) in a much larger sample. The differences cannot be resolved even by taking account of the considerable difference in caste and income distribution in the two studies. Djurfeldt and Lindberg's implication that population control is not necessary because the total number of live births is about 6 or 7 and living children 4 or 5 per woman seems to disregard the growth rate consequent to such fertility. In spite of their own conclusion in an earlier chapter that poverty is the most important factor in malnutrition, they maintain that even landless labourers are normally able to provide adequately for their children. The argument that agricultural production can be increased two-fold, and land might be more evenly distributed, does not take account of the exponential nature of population increase.

Several studies have demonstrated what is sometimes called the 'KAP gap'; that is, the fact that many of those with positive attitudes do not actuallay adopt any method (Mahadevan Pillai 1975; Park, Chung and Han 1975; Kar 1968). This may be due to barriers to action, e.g. wife cannot adopt because husband is against it; or fear of supposed effects on health may act as a barrier. It may also be due to the time required to take a decision. Mahadevan Pillai (1975) found that this time is longer for men than for women. Park, Chung and Han (1975) using multiple classification analysis make a detailed study of various factors affecting the different stages of the adoption process, using a modification of Lionberger's five stage model. The decision, choice making, and adoption stages are influenced mainly by interpersonal communication (i. e., talking with neighbours, exposure to rumours, and number of practising persons known), amount of discussion between husband and wife, and credibility of services. The earlier stages are also influenced by mass methods such as printed materials and public meetings, as in Lionberger's model. Knowledge only accounts for about 20 per cent of the total variance.

Many social psychological studies have shown the importance of group influence in changing attitudes and behaviour. Individual methods of health education are usually less effective because the individual is often not able to withstand the pressure to conform with the traditions and customs of his society. Group methods are more

likely to change the community as a whole particularly if influential leaders are involved (Oswal 1973). The effectiveness of these methods has been demonstrated (Ranganathan, Srinivasan and Mathews 1965; Bhende, Jahina and Mohanty 1968). In a previous study (Mathews 1979; 1975), it was found that the pattern of acceptance of family planning indicated that small groups of family and neighbours as well as leaders were influential in persuading others to accept.

The influence of hospital staff through deliveries in hospital has already been mentioned. This was found to be greatest for high caste women who could more easily afford hospital deliveries. In an unpublished study (Benjamin *et al* 1970), it was also found that people, especially women, heard of the methods mainly through hospitals, although friends and neighbouts also played a part. The importance of the postpartum period has been well recognised, in the setting up of postpartum units.

Conclusion

Although in general knowledge, attitude and practice of antenatal care seems poor it can be considerably increased by means of education and services. For family planning, knowledge lags behind attitude and even acceptance, and much education is needed to avoid false rumours and fears. In giving such education, group methods should be used, and temporary methods should be more stressed than at present. If family planning programmes can be closely linked with economic development programmes, the results may be more successful. Deliveries in hospital should be encouraged for the sake of their educational effect.

REFERENCES

Benjamin, V., C.M.E. Matthews. Sadasiban Nair and A. Palocaren, *A Study of Family Planning knowledge and Attitudes in Tamil Nadu*, Part 2; 1970, unpublished.

Bhende, Jahina and S.P. Mohanty, 'Diagnostic Study of the Group Discussion Method in Family Planning Programme,' in *Five Years of Research in Family Planning*. Bombay: Demographic Training and Research Centre, 1968, mimeo.

Chandrasekar, S., *Infant Mortality, Population Growth and Family Planning in India*. London: Allen and Unwin, 1972.

Djurfeldt, G and S. Lindberg, *Pills Against Poverty*. New Delhi: Oxford and IBH, 1976.

Gopal Rao, K., *Studies in Family Planning in India A Review for Programme Implications*. New Delhi: Central Family Planning Institute, 1968, mimeo.

Kar, S.B., 'Cultural Determinants of Cognitive Gap and the Problem of Planned Change in Family Planning in India,' *Indian Journal of Public Health*, 12(30, 1968).

Leibenstein, H., *Economic Backwardness and Economic Growth.* New York: Wiley, 1957.

Mahadevan Pillai and D. Narayanan Namboothiri, 'Caste, Status and Fertility in a Rural Area of Tamil Nadu,' *Bulletin of the Gandhigram Institute of Rural Health and Family Planning*, 7 (1, 1972).

Mahadevan Pillai, 'Determinants of Non-Contraception: An Exploration in the Process of Decision Making Among Non-adopters,' *Bulletin of the Gandhigram Institute of Rural Health and Family Planning*. 9(1, 1975).

Matthews, C.M.E., 'A Theory of Behaviour Change,' *International Journal of Health Education*, Supplement to 18(2, 1975).

————*Health and Culture in a South Indian Village*. New Delhi: Sterling, 1979.

Oswal, M.G., 'Factors Influencing Acceptance of Vasectomy in an Indian Village,' *International Journal of Health Education*, 16(43, 1973).

Park, H J., K.K. Chung and D.S. Han, 'A Study of Some Behavioural Problems in Sequential Processes of Adoption in Family Planning,' *International Journal of Health Education*, 18(229, 1975).

Ranganathan, K.V., K. Srinivasan and B. Mathews, *Role of Community Leaders in Promoting Family Planning in Rural India*. Action Research Monograph No. 1. Gandhigram: Institute of Rural Health and Family Planning, 1965.

Wyon, J.B. and J.E. Gordon, *The Khanna Study: Population Problems in the Rural Punjab*. Cambridge, Massachusetts: Harvard University. 1971.

Table 1: Do you think large families or small families are best? How many children?

Number of children	Total: % of respondents D		E	
1	0.3	51.0	0.6	70.4
2	15.1		20.1	
2-3	22.1		19.3	
3	15.5		30.4	
4	17.9	47.0	16.1	27,1
5-6	17.6		6.9	
>6	11.5		4.1	

Table 2: Is it good to have only about 1 year between each child or is better to have several years in between?

	% of respondents D	E
1 year	0.1	0.4
2 years	17.4	9.6
3 years	35.3	35.8
4 years	9.8	14.8
5 years	11.7	14.9
6 years or more	22.8	20.5
Why?		
For healthy children	56.5	42.9
For health of mother and child	18.7	25.1
For health of mother	10.9	20.3
For easy maintenance of family	10.5	0.8
Economic life	3.2	1.6
Don't know	1.9	0.7

Table 3: If a husband and wife do not want to have another child now, what can they do?

		% of respondents			
	A	B	C	D	E
Self-control	35.9	23:4	50.9	43 0	46.1
Medicine				4.8	0 1
Consult a doctor				4.3	4.1
Injection				4.1	1.0
Abortion				2.2	1.9
Loop	9.1	6.4	4.6	2.1	3.2
Condom				1.8	5.1
Pills				—	3.1
Can't do anything				5.2	3.0
Don't know				30.0	29 8
If they do not want any more children ever what can they do?					
Operation				55.2)	37.5)
Twist the uterus				2.3)	0.1)
				) 6.01	) 70.9
Tubectomy				1.2)	18.5)
Vasectomy				1.4)	14.8)
Self-control				12.4	4.9
Consult a doctor				8.6	10.8
Injection				2.8	1.0
Take medicine				2.4	0.3
Adopt family planning				—	7.1
Can't do anything				2.1	0.1
Don't know				9.8	14.6

Table 4: What is family planning

	% of respondents	
	D	E
Operation for men and women	24.5	7.7
Prevents more child birth	24 4	38.7
Limiting the number of children	20 0	25.4
No child to be born	2.1	—
Cutting the nerve	1.9	1.1
Don't know	25.7	23.8
What methods can be used?		
Operation	40.0	52.2
Vasectomy	2.6	2.8
Cutting the nerve	1.0	0 4
Twisting the uterus	2.3	0 1
Tubectomy	1 5	5.1
Pills	3 2	0.8
Self-control	1.4	1.8
Nirodh	1.4	2.4
Loop	2.5	2.7
Injuction	1.9	0.4
Don't know	29.4	17.3
Not applicable	21.4	22 0

Table 5: What does your husband/wife think about family planning? What do the older people in your family think about family planning?

	Elders					Husbands				Wives		
	% families interviewed					% wives interviewed				% husbands interviewed		
	A	B	C	D	E	A	B	C	D	E	D	E
Bad	18.2	32,6	25.0	65.4	62.1	13.2	29.2	28.0	48.4	46.5	55.2	60.2
Leads to weakness	—	—	—	—	—	2.3	6.3	0.8	—	—	—	—
Good	40,6	35,9	11.1	18,6	21.3	64,3	54.2	30.4	31.2	40.6	35.2	32,5
Small family healthy children	—	—	—	—	—	3,1	18.1	—	—	—	—	—
Does not know about it	—	—	—	—	—	—	—	—	20.7	—	—	—
Don't know or no reply	4.1	12.1	9.3	15.3	11.3	6.3	11.1	10.8	—	13.1	—	5.9

Table 6: Have you ever used any method to prevent pregnancy?

	% of respondents				
	A	B	C	D	E
Yes	20.5	17.0	13.4	8.5	10.6
No	78.6	78.0	84.3	91.5	86.5
No reply	0.9	5.0	2.3	—	—
Vasectomy	8,2	7.8	6.0	4.2	4,6
Tubeciomy	8.2	5.7	3.2	1.9	4,0
Actual % of acceptors	21.2	19.5	12.1		

Table 7 : Antenatal care and Delivery

				Average number of women	
				D	E
Pregnancies				4.8	4.9
Live births				4.5	4.6
Still births				0.072	0.085
Abortions				0.25	0.16
Children alive				3.26	1.21
Children died				3.26	3.41
Cause of death				% of total deaths	
Fever				18.2	18.7
Dhosham				16.3	20.4
Sevappu				9.9	11.3
Diarrhoea				8.5	10.0
	A	*B*	*C*		
Ammai	20.9	15.0	7.7	9.5	10.1
Evil spirits				5.7	2.9
Mandhai				4.6	1.8
Accident				2.3	1.8
Fits				1.7	3.8
Don't know				13.4	12.3
Age at death					
1 month				25.0	25.8
1-3 months				8.9	10.5
3-11 months				19.7	16.1
1-5 years				28.4	33.9
6-10 years				7.3	5.1
11 years and above				10.7	8.5

Table 8

	% of respondents				
	A	B	C	D	E
Place of delivery					
Hospital, PHC or sub-centre	15.9	13.6	8.2	9.1	9 9
Home	84.1	86.4	92 0	92.3	90.0
Attendant					
Doctor				2.5	2.1
Nurse/Midwife				12·7	15 2
Untrained dai				67.5	70.9
Relative				17 8	11.6
Pregnant when interviewed				5 1	5·6
				% of pregnant women	
1st trimester				22.2	21.2
2nd trimester				50.0	36.8
3rd trimester				27·8	42.1

Table 9: Do you see a doctor, nurse or midwife when you are pregnant?

	% of respondents				
	A	B	C	D	E
Yes	54.8	32.3	24 0	13.1	20.7
No	38.6	63.4	73·6	83.5	76.1
Not applicable	6.6	4.2	2.4	2.8	3.2
If yes whom do you go to ?					
Doctor				8.8	5.9
Nurse				4.1	14.8
Mid-wife				1.4	—

How many months pregnant are you when you first go ?

Months	% of respondents	
1	0.1	0.3
2	0.7	2.4
3	2.4	1.8
4	0.6	5.3
5	4.1	3·3
6	0.8	3.8
7	1.7	1.6
8	1.1	1.6
9	1.1	0.3
Only if there is trouble	0.4	0.3
Not applicable	86.5	79·3

Table 10

Have you had swelling of feet when pregnant ?	% of respondents	
	D	E
Yes	11.0	9.9
No	89.0	86.9
What do you do for it ?		
Hospital	4.5	9.5
Traditional	1.8	0 7
Home treatment	0.1	0.1
Don't know	4.6	3.0
What is the cause of this ?		
Bad water *(Kettanir)*	1.1	8.7
Eating too much salt	1 0	—
Due to swelling of uterus	1.0	—
Not getting desired food	0.6	10.5
Don't know or not applicable	89 1	73.8
Have you had bleeding when pregnant ?		
Yes	0.7	1.0
No	99.0	91.4
Don't know or not applicable	—	7.6
Have you had anaemia when pregnant ?		
Yes	6.9	5 9
No	92 0	89.0
Don't know or not applicable	1.3	5.1
What do you do for it ?		
Government Hospital	2.0	3.0
Private doctor	0 7	0.4
Shop	0 6	—
Traditional	0.4	0.2
No treatment	3 0	0.3
Don't know or not applicable	93.3	95.8
What is the cause of it ?		
Weakness	1.3	2.1
Not enough food	1.1	1.9
Too much hard work	0 4	—
Frequent Childbirth	0 4	0.4
Don't know or not applicable	96 2	95 8

Table 11

Do you eat more during pregnancy?	% of respondents				
	A	B	C	D	E
Yes	—	—	—	21 5	7.1
No	—	—	—	76.2	88 0
Not applicable	—	—	—	2 4	4.9
Do you avoid any food during pregnancy ?					
Yes	6 7	15 5	13 2	13 3	5.3
No	86.1	81.7	80.2	83.5	90.9
Don't know	3.0	—	4.1	0.6	—
Not applicable	1.8	2.8	0.8	2.4	4.9

If yes, what food ?		
Dhal	4.0	1.5
Meat	2.2	0.4
Kali, Kulu	2 0	0.7
Sweets, gingelly, and spices	1.9	1.8
Left over *kali* and rice	1.4	0 4
Don't know	1.4	—
Not applicable	86.5	93.8

Table 12

If you do not eat enough food when you are pregnant, will it effect the baby?

	% of respondents				
	A	B	C	D	E
Yes	70 5	83.1	50 4	8.1	1.8
No effect	16 3	12 7	38.4	79.0	92.9
Don't know	11.4	2.8	8.8	12.5	0.3

Table 13

	% Attitude Score	
Total Area	*Family Planning*	*Ante-natal Care*
A	17.2	61 4
B	0 9	37.8
C	3 9	30 1
D	—24.3	—16.2
E	—9.8	—2.1

Table 14

Village and Area	% Attitude Score *Family Planning*	*Ante-natal Care*
Service Area—A:		
Edayanchat	38.8	77.8
Thuthipet Panchayat	11.3	54.4
Pennathur	—4.3	64.7
Kattuputhur	31.4	63.0
Allivaram	8.8	33.1
Service Area—B:		
Soudalipuram[1]	28.9	23.8
Veppampet	10.5	65.7
Chinnapalambakkam	—15.3	15.4
Control Area—C:		
Kannadipalayam[2]	6.0	17.5
Kesavapuram[1]	4.2	8.8
Mettupalayam[1]	14.8	40.4
Addukkambarai	6.6	21.9
Sathupalayam	—1.3	27.1
Nelvoy	9.3	26.2
Sholavaram	—1.4	40.6

1. Pennathur Panchayat, non-service area.
2. Pennathur Panchayat.

The Development Worker and the People: Need to Dialogue

J. M. Heredero

This paper examines the factors which influence the relationship between development workers of voluntary organisations and the people with whom they are involved in development programmes. Both institutions and personnel have their own 'needs'—the need for power and the need to be needed—and there may be a tendency for development workers and voluntary organisations to project their respective needs on the people with whom they are working. As a consequence, development workers and the beneficiaries may find themselves caught up in a bargaining process that prevents mutual understanding and growth. This paper suggests that through dialogue a bargaining situation can be turned into a learning process that is open to growth. This has important implications particularly for the recruitment of personnel for development work—professionals who have mastered their own discipline (agriculture, medicine, economics or engineering) and at the same time have the skills required to dialogue effectively with the people.

This paper deals with the way beneficiaries perceive development workers and how this perception affects the relationship between the development worker and the beneficiaries. Beneficiary here means the people helped by voluntary organisations i.e., those institutions which work for rural development.

How the beneficiary views the voluntary organisation depends naturally on many factors: How long has it been in touch with the beneficiary? What kind of work has it been carrying out? Who have been working etc. But for all these differences there is likely to be an understanding of the voluntary organisation by the beneficiary which is more or less generalised because it is based on that relationship arising out of the very nature of the work which it carries out.

Professor J. M. Heredero is Director, Behavioural Science Centre, Ahmedabad and author of *Rural Development and Social Change* (Manohar, 1978).

Meaning of help

One can safely assume that a voluntary organisation is primarily in the field to help the beneficiary. The word beneficiary itself speaks of a person who is helped. Therefore, the relationship between the voluntary organisation and the beneficiary will be one of helper and helped. In this relationship two different parties which often have very little in common are brought together by a magic word—'help.' When this word is understood in exactly the same way at both the conscious and the unconscious levels by both the giver and the receiver, the likelihood of misunderstanding between the voluntary organisations and the beneficiaries is minimal. But, unfortunately, this is not always the case.

For the beneficiary help has a very narrow meaning. In the lives of poor people, there is always one thing which needs urgent solution; to pay back a debt, to find employment, to dig a well in the fields. This is his need. Help means to take care of *that* need. Any talk on something else is just words, words, words!

For the voluntary organisations, on the other hand, help is very likely to be understood in a very different manner, and in different ways depending on the main aim of the organisation. Thus, if the main aim of the voluntary organisation is education, then the help which the beneficiary needs will be understood to be education; but his main need will change to curative medicine, housing, agriculture, lift irrigation, control of rodents or road building depending on the voluntary organisation's main area of activity.

In short, help may mean one thing to the voluntary organisation and a very different one to the beneficiary, giving rise to a misunderstanding. Indeed, the very first question that a voluntary organisation should ask itself is this: 'If help has to be given in answer to a need, *whose* need does the help which I give answer?' Sometimes our needs meet: the patient needs the doctor as much as the doctor needs the patient! But sometimes the doctor may need the patient more than the patient needs him; in which case, the doctor may feel tempted to protract the illness of the patient. In other words, the need of the voluntary organisation or its personnel is made to become the need of the people. Or, as psychologists say, the former project their needs on the latter. This projection can be of either institutional or personal needs. Let us explain each separately.

Projection of personal needs

The distinction between personal and institutional needs takes cognizance of the fact that the personnel of the voluntary

organisations may have needs different from those of the institution they serve. Now these personal needs may work against the beneficiary. To clarify this point let us take a hypothetical example where the voluntary organisation aims to help the beneficiary precisely where he wants to be helped. The example: A voluntary organisation well aware that there is lot of unemployment and eager to solve the problem sets out to help the beneficiary by setting up a milk-producers' cooperative on the understanding that the schemes will provide additional employment and income. The organisation provides the initial loan, the managerial and animal husbandry know-how and even helps in buying the buffaloes. The result is a cooperative so successful that people from all over the country come to see it; even international organisations take interest in it. The voluntary worker feels nice. The cooperative helps so many people that the local politicians begin to court its managers. The voluntary worker feels powerful. The cooperative now becomes an end in itself. It did satisfy the first need of the beneficiary. But the cooperative is subsequently made to serve the personal needs of the so-called people's helpers. The cooperative which could have helped the beneficiary first to achieve economic independence, then competence in animal husbandry and finally managerial skills to run the cooperative himself, stops short of these lofty goals. All this, of course, in the name of the people and their true welfare. Because, it is agreed, *if the management is given over to the beneficiary, the cooperative* will soon end up in corruption and mismanagement. Those who so speak might not have been able to answer an entirely different question: 'If I give power to the people where am I'?

Here the personal needs of the voluntary worker stand in the way to the true development of the beneficiary. The need for power, the need 'to feel needed,' the need to father or mother people are all examples of such personal needs.

From what has been said above, some may draw the conclusion that development work demands so much detachment as to be beyond the possibility of ordinary human beings. This is not true. Development work does not ask for *mahatmas* or saints; all that it asks for is enlightened self-interest. To begin with, it is important to stress that no personal need is bad in itself; therefore, nobody should be ashamed of having such needs or motives. Second, it is very important that these needs be accepted by the person in question and by his organisation. Needs which are denied by us have a way of coming back at us. Finally, the person in question and its organisation must find out creative ways of dealing with those needs. A creative way is that which satisfies the personal need without harm-

ing the client. Thus, in the above mentioned example, withdrawing in time will not decrease but increase the prestige of the voluntary organisation and its personnel. And by replicating the model somewhere else, personal power, far from being lessened, is greatly enhanced.

The only difficulty in the whole exercise is that the one in question requires personal courage to accept one's own needs to oneself and to others. One requires self-confidence to believe that what has been done here can be replicated some where else. Personal courage, self-confidence—are not these great 'developmental' needs of every individual? Here is the great paradox of life: 'The more we give, the more we receive.' 'Acceptance of the developmental needs of our clients leads to our own personal growth.' A person need not be a great man to do development work; but he may very well end up by being one if he does it in a professional manner. For, if development work demands from us self-discipline and detachment so does personal growth and emotional maturity. This may not be perceived by voluntary workers because they, like the beneficiaries at another level, are so blinded by their immediate needs that they forget their long-term interests. Development work may bring about this awareness.

Projection of institutional needs on beneficiary

The example given above takes for granted that sometimes the professed need of the organisation and the felt need of the beneficiary can coincide. But unfortunately that is not always the case. Sometimes they differ, in which case, the likelihood is that the voluntary organisation may project its needs on the beneficiary.

Here again is a hypothetical example of an organisation which specialises in slum clearance. Food, clothing and housing are understood to be three of the basic needs of man. In a city the lack of a decent house is seen by the affluent society as a crying need which demands an urgent solution. And so an organisation has been set up to take care of this need. A number of rich and well-meaning citizens offer their money. Government and international agencies see it as their duty to help in the venture. And so the new organisation goes to a slum. What is the help the slum dwellers need? For one set of persons at least, there is no doubt—what these people need is a good housing scheme. Now the chances are that housing is a need which is very low in the slum dwellers' list of priorities. In this case, help (the satisfaction to their needs) will be understood differently by the beneficiary and the organisation and this, of course, gives rise to a misunderstanding.

Let us now examine the possible situations which this misunderstanding may give rise to. A voluntary worker goes to a slum

to meet the people. There they are: he and they, rich and poor. After the first initial misunderstandings *they* begin to receive a clear message: '*He* wants to help *them*.' But they need money or employment and he offers them housing. Some of them say: 'We don't want anything to do with him.' Others who are cleverer say: 'He is rich, he has influence We do not want a house. But it may very well be that *if* we accept it we shall secure what we want.' The others see reason in this and now all agree to go along with him.

This situation has all the elements of a bargain. Briefly: there is a party (a voluntary organisation) which has a need to set up a housing scheme. There is another party (the beneficiary) which needs, let us say, money. In this situation how does the latter see the former and its project?

1. The beneficiary may look at the organisation as something he needs. In which case the project will be seen as something to be done in order to preserve the organisation's services. The project then becomes the *tribute* the beneficiary has to pay to the voluntary organisation. A tribute is always paid reluctantly. Little wonder if the project is sabotaged in more or less subtle ways. For example, the houses may be sublet or sold, and the people may revert to the slums.

2. The beneficiaries may not see the voluntary organisation as indispensable; but they may also see the project as a *means* to achieve their aims. In this case, the project becomes the handle which can be used to manipulate 'them.' The beneficiaries may reason it in one of these ways. 'They have plenty of resources. We need money. They need a housing project. We give it to them. Let them now give us money.' Or 'This project must be giving plenty of money to *them*. Now we also cooperate in it. Therefore, we should also share in the spoils.'

In this situation, the beneficiary feels that tough bargaining is ahead; and, therefore, he is likely to adopt the usual bargaining tactics. Secrecy will be one of them 'One does not show one's cards.' Indeed he may even try to mislead the voluntary organisation. And, of course, in every bargain the stakes must always be kept high. In the process the slum dwellers keep on looking at the voluntary organisation as the other bargaining party. All its moves will be interpreted in this light: 'How do the voluntary workers play their cards?' Three broad interpretations may be considered here. First, the voluntary organisation may be very soft towards the beneficiary, in which case the latter is likely to interpret this attitude in three possible ways: (i) that the former are stupid, and therefore, have no credibility; (ii) that they have a lot of money in which case the beneficiary will

try to get as much as possible from them; or (iii) that they need the project very badly in which case he will harden his bargaining position.

Second, if the voluntary organisation is seen as a very hard bargainer he is likely to see it as an improved replica of the local moneylender or zamindar. This means that the relations between him and the voluntary organisation will be patterned very much along the well-known relationship of moneylender and the poor. This explains why development workers who are very harsh with people seem to be not only more efficient but also to get along better with the people. Because their harshness makes them fit properly within a role which is well known to the people: there is no need for readjustment in their relations The question, however, is if the whole relationship remains the same, will the development workers help the people to develop?

There is, of course, a third possibility i.e., when the voluntary workers turn the whole situation into a learning one. More will be said about this later.

The attitudes of the people may trigger off unhealthy reactions in the voluntary worker When he sees that the people fail to act as he expected them to, he is likely to be disappointed; but if he further thinks that he has a right to a particular response which is not forthcoming he is likely to feel aggrieved because he feels wronged by the people for whom he is doing so much. 'They are ungrateful, deceitful, selfish. . . .' —these or similar adjectives he may use in an effort to see meaning in a situation which does not make sense to him. But this attitude of his will generate a similar one in the people and the result will be mutual recrimination: he blaming them and they blaming him. In that case, and initial misunderstanding will lead to further misunderstandings, both parties drifting further apart.

Need of dialogue

The important thing in all possible situations described so far is that the relationship established between the people and the voluntary organisation is not a sound one simply because it is based on either a misunderstanding (in the case of help being understood differently) or in attitudes which are not authentic when the voluntary worker's avowed aim is one and his real motivation is another.

When such a relationship exists, it is evident that no dialogue is possible because no real communication has been established. Therefore, growth does not take place.[1] And who can deny that growth may be required sometimes by the beneficiaries, sometimes by

1. The meaning of growth and its role in development is explained more in detail in J. M. Heredero, *Rural Development and Social Change*, Manohar Publications, 1979 (2nd Printing).

the voluntary organisations and sometimes by both?[2] In development work it is first the duty of the voluntary workers to grow by making sure that they are not acting out their personal or institutional needs on the people. One way to do it may be self-examination and another way is to start a dialogue with the people in order to understand them better and also to make themselves better understood by the people. Whatever may be our shortcomings the people have a way of teaching us and correcting us which is wonderful, if we only listen to them and understand them.

There is also a need of dialogue when the people are so overwhelmed by immediate needs that they are ready to take steps contrary to their own long-term interests. The beneficiary in this case must be made aware that his need is only part of a much bigger reality, and that no effective means can be taken to solve their felt needs unless the totality of the situation is taken into consideration. An example will help to illustrate this point.

A voluntary organisation working in a village, studies the situation and comes to the conclusion that the expenditure of the beneficiaries is higher than their income and consequently the people are indebted. The examination of their expenditure reveals that not enough is spent on the necessities of life—food, clothing, housing and agriculture, while too much is spent on social customs, medical bills and uneconomic borrowing. Since they are so hard up for money they are forced to accept loans on adverse terms. Again, since they do not have the money they must buy on credit and pay double. The amount of money paid on interest is higher than the original amount of money borrowed. A study of their income reveals that their income from agriculture is very low because their methods of cultivation are too primitive and because not enough is invested in their fields.

The beneficiaries are haunted by moneylenders and have an unavoidable need of cash. If the organisation gives them money it knows too well that it is helping to perpetuate a system. If the voluntary worker, ignoring the beneficiary's needs, tries to push, say an agricultural improvement programme, then he is facing certain failure, since the beneficiaries are not likely to give full-hearted cooperation to something which they consider irrelevant to their present needs.

---

2. This would be described by Paulo Freire as the demythologising process. Given the Marxian background of much of his philosophy, the myth corresponds to the superstructure resulting from unjust structures. While many myths are the result of socio-economic structure not *all* myths have a social origin. Individuals create their own myths to justify their actions (or lack of it) or to explain away a past which they don't have the courage to own up. By speaking of 'growth' this writer tries to keep clear of ideologies which may narrow down the scope of the personal changes demanded by a real commitment to work with the people.

There is only one way out and that is a true dialogue[3] where the voluntary organisation keeps on relating the beneficiaries' need to the totality of the situtation. Education is another word for this dialogue.

On the other hand, this dialogue is not as easy as it may appear. It requires from the organisations' personnel professional skills: (i) the *ability to listen to the people and understand* not only their words but the real meaning behind them; (ii) knowledge of the situation. This demands deep involvement in the lives of the people and serious study; (iii) knowledge of the wider reality, viz., of the whole country (and of the world at large) of which this situation is only a part.

It requires also certain inner attitudes without which those skills will not be put to good use:

(i) *Self-confidence.* To face the seduction, opposition and indifference of the beneficiaries without either being trapped or feeling personally threatened.

(ii) *Faith in the people.* If voluntary workers lack this faith no meaningful dialogue is possible with the beneficiaries and no real education will take place. Indeed the chances are that the voluntary organisation will eventually work against the long-term interests of the beneficiary. If the social workers believe that the beneficiary cannot *take care of himself, evidently they will never work towards an* eventual stage where he becomes self-reliant. If they do not believe that he can learn they will not even try educating him or, if they do, they will unconsciously undo what they are professedly doing.

On the other hand, let the voluntary organisation have faith in the people and that faith will be communicated to them. If the voluntary workers fail they will attribute the failure not to the beneficiary but to their approach or methodology or their imperfect understanding of the situation and the people. In other words, when there is faith, failure makes the voluntary organisation search. When there is no faith, failure makes the voluntary organisation blame the beneficiary. *Faith in the people can be said, without fear of exaggerating,* to be the most important virtue of all those required by development workers.

Much is being said in development literature about dependence and often it is assumed that social or developmental work leads unavoidably to a state of dependence. That this happens often is evidently true. That this is in the nature of things is not so clear. Faith in the people and courage to live up to that faith will help the development workers to make themselves dispensable at the right

3. Much of what is said here is based on Paulo Freire's 'dialogical action' as explained in *Pedagogy of the Oppressed* (New York: Herder, 1972)

moment and will foster in the people the attitudes and skills required to become self-reliant at an early stage.

Need of competent workers

This paper assumes that development work may be of many types and it claims that all of them establish a specific relationship with the beneficiaries which requires very definite skills and attitudes. In other words, development work requires competent people: people who have mastered their own discipline be it agriculture, medicine, economics or engineering and, at the same time, have acquired the skills required to dialogue effectively with the people. And development workers like all professionals must have their own code of conduct based on the inner attitudes which have been mentioned earlier. Development work, like education, like medicine or education demands a certain dedication and a code of conduct. When a person possesses them, he is a good development worker. Unfortunately, little is done to create a cadre of competent people in the field of developmnt work—even though its needs are so keenly felt by everybody. Government and government related agencies have developed their own cadre of people. Althoug this people have often impressive technical knowledge their ability to dialogue with the people is not, unfortunately, their strong point.

To create a body of competent people in this field two things are required. (I) Professional salaries should be offered to prospective candidates; and (2) institutional support must be provided which will guarantee permanence in service. There are many organisations (national and international) which make material resources available for development. They are ready to pour their money in buildings, equipment, digging wells, offering food for work, procuring loans etc. But how many agencies are ready to create the only thing which will make all these projects successful—honest and competent development workers? If my experience is any indication, then there are practically none. For some time I found it almost impossible to secure money to pay salaries. Later, I was offered money to pay salaries, but only for a limited period of time.

It is difficult to have competent people working for a task which is hard in itself. But, if on top of this, they are not sure of a professional salary, or if that salary can be offered only for the duration of a short-term project—is there any likelihood of creating the desired cadre? Without it, the development work carried out by voluntary organisations is left either to amateurs or to that select band of exceptional people who are ready to work at great personal sacrifice. The task ahead of us is so great that it is shortsighted to depend only on exceptional people. A wider net must be cast to draw into this work all the honest and competent people available.

India has at present a great number of unemployed graduates who could be utilised for development work. There are no better trained people whose training and creativity are wasted in routine jobs which provide no challenge to them and consequently give them no satisfaction. But the security offered by banks or government (in a country where employment is such a big problem) will not allow them to accept a better paid and more challenging job at the risk of that security.

Even apart from the employment problem there is a special difficulty in India to find people who are ready to do development work. This work usually entails working with the lower castes and the poor people. Given the caste system prevailing in the country many people have still ingrained prejudices against the lower castes. It is not easy to overcome this prejudice. Even religions, like Islam and Christianity which, in principle uphold the equality of all men, have in practice, fallen prey to caste prejudices. An individual may overcome them and may still succumb to the pressure of his relatives and friends demanding him to either uphold the values of the caste system or, at least, to conform externally to them. Hence the difficulty of finding people who are really committed to social change. Now when financial insecurity is added to this difficulty, especially when it is a question of giving up a secure job, the chances of creating a cadre of professional men are very small indeed.

If fairness and justice demand that professional people be paid professional salaries, the employment situation prevailing in this country demands that their employment be of a permanent nature.

Need of professional training

One often hears complaints about the shortcomings of the people working for development. To point out defects is the first step to remedy a situation; but it is not enough. One must study the causes leading to such a situation. This paper has already suggested the first step towards better development work—the professionalisation of its services by creating those conditions which will make it possible to recruit people who are both competent and committed.

There remains one question to be answered: are there such people available in the country. The answer, unfortunately, is negative. Dr Kurien of the National Dairy Development has been forced to plan his own training service to provide his cooperatives with competent personnel.

While much of the theory needed in development work is given at the various schools of social work, theory alone is not enough. And indeed the same theory may mean one thing when given within one value system and it may mean something quite different when

the values held are different. In any case, theory alone does not bring about commitment. The latter is the product of the values one upholds. And, unfortunately, the values prevalent in our universities are not likely to promote the right attitudes towards development work. To be more specific, mention can be made of those values which lead people to believe that teaching is more important than learning; that city people are better than their rural counterparts; that money and power are the standards of success in life; that a successful student is one who has made it into an executive position in industry. When our universities accept such norms they are not likely to turn out graduates who will be looking forward to work in the villages, who will think that they must learn from the poor, who will have faith in illiterate people. Without these fundamental attitudes is there any chance that these graduates will develop those other skills required in development work, like the ability to understand others and to communicate with them which is the basis of a meaningful dialogue and true education? Therefore, development work cannot rely entirely on the training given in our universities.

If the voluntary organisations could set a model of unity and cooperation; if the aid-giving agencies could also do the same; and if, as a result, permanence of service and professional salaries could be offered to prospective candidates, then the system could be rounded off by a number of voluntary organisations joining together to offer training services as well.

Let this paper end by stating in clear words the assumption on which the whole paper has been based. True development means, in the last analysis, personal growth—the ability to cope every time more effectively with difficult situations; the ability to make history[1] meaningful. Maybe if voluntary organisations spent a little more time in 'developing' their staff they would be in a better position to help in the develepment of others.

---

1. This sentence has to be understood as Freire explains it. For him and other Latin American thinkers, man is human only to the extent to which he takes part in history; and, indeed, the criterion to judge man's performance is his ability to shape history. History embraces everything: the *whole* man and the outer reality. Reality does shape man; but man *can* shape reality. This awareness can change man from being a mere object into becoming a subject—a doer. In *other words there is a dialectical relationship between man and reality* which is enacted in time. This process is called history. When man takes an active part in it, he *makes* history.

Day Care for the Urban Poor: A Profile of Women and Children

Alfred de Souza

This paper which is based on a larger study of creches in Delhi, uses survey data on 381 mothers and 448 children in 23 creches as well as the findings of an intensive study of 125 mothers and 149 children in 7 randomly selected creches. The nutritional and health status of the children, as indicated by the mid-arm circumference measurement, showed that a high proportion of children, particularly in the age group 1-3 years, were suffering from various degrees of undernourishment which would have serious consequences for both their physical and mental development. The mothers who used the creches were migrants engaged in a very restricted range of occupations and living at the subsistence level. The creches appeared to be a social necessity both for the working mothers as well as housewives who, though not wage earners, did considerable work which had important economic implications for the well-being of the family.

In this paper we will present a profile of the users of the creches—mothers and children—with the focus on their socio-economic characteristics. This profile will be based on two sources, survey data on 23 creches, 381 mothers and 448 children and an intensive study of a sample of 125 mothers and 149 children in 7 creches sponsored by 5 voluntary organisations.

It was found that 270 women (70.9%) were from rural areas and 105 (27.5%) from urban centres. The largest number 114 (29.9%) had come from Uttar Pradesh, Rajasthan, Madhya Pradesh, Punjab

Dr Alfred de Souza is Editor of *Social Action* and Director of Research and Publication, Indian Social Institute, New Delhi. This paper is based on a Report prepared for the Department of Social Welfare, Government of India, 1979 (mimeo). The responsibility for the views expressed is entirely that of the author and not of the Department of Social Welfare. I would like to thank Ms M Rallia Ram, Ms C Deepika, Ms Mohini Balchandani and Ms Neerja Arora for their research assistance and Ms Loretta Saldhana and Ms Aleyamma Mathews for their help in preparing the manuscript. I am also grateful to Dr Stan D'Souza for valuable suggestions and support.

and Haryana. There were seven from Tamil Nadu, three from Bihar, one from West Bengal and two from Nepal (see Table 1). The distribution according to the State of emigration shows that these mothers came largely from neighbouring States of Delhi and the majority of them were resident in Delhi for 7 years and above. Table 2 shows the distribution of women migrants from the different States by length of residence in Delhi. The information on the length of residence in Delhi shows that, notwithstanding the conditions of poverty under which these women were working and managing their family life, there was for all practical purposes a decision to settle permanently in Delhi with occasional visits to the home village for economic and social purposes connected largely with agriculture and marriage.

A large number of women reported that the reason for migrating to Delhi was economic distress brought about by unemployment as well as droughts and floods. We should distinguish between these 'distress migrants' from construction labourers who come as 'temporary migrants' from Rajasthan to work on building sites in Delhi. Rajasthani labourers do not intend to settle in Delhi and they move from one construction site to another and between Delhi and Rajasthan. Thus only a few Rajasthani families were found in the slum resettlement areas of Delhi. On the other hand, distress migrants tend to become permanent settlers, living in slum and squatter settlements and largely continuing their traditional occupations (Majumdar 1978). In fact, more most of the migrants who have settled in Delhi for long periods were from Uttar Pradesh, the rural region of Delhi, Madhya Pradesh, Punjab and Haryana (Singh and de Souza 1976).

Table 1: Rural/Urban Origin of the Mothers (N=381)

States	Rural		Urban		Not known		Total	
	No	%	No	%	No	%	No	%
Tamilnadu	5	1.3	—	—	2	0.5	7	1.8
Bihar	3	0.8	—	—	—	—	3	0.8
Delhi	23	6 0	72	18.9	2	0.5	97	25.4
Haryana	20	5.3	2	0.5	—	—	22	5.8
M.P.	21	5.5	1	0 3	1	0 3	23	6.1
Punjab	2	0.5	9	2.3	—	—	11	2.9
Rajasthan	95	24.9	5	1.3	1	0.3	101	26.5
U.P.	100	26.3	14	3.6	—	—	114	29.9
Nepal	1	0.3	1	0.3	—	—	2	0.5
W. Bengal	—	—	1	0 3	—	—	1	0.3
Total	270	70.9	105	27.5	6	1.6	381	100

Table 2: Percentage of Women Migrants by State of Emigration and Period of Residence in Delhi (N = 377)

Residence in Delhi	State of Emigration										
	Tamil Nadu	Bihar	Delhi	Haryana	M P.	Punjab	Rajasthan	U.P.	Nepal	West Bengal	Total
1-6 yrs	0.3	—	1.9	1.1	4.5	0.3	13.0	12.4	0.3	—	33.8
7-13 yrs	0.5	0.5	0.5	3.2	1.5	0.3	7.6	11.3	0.3	0.3	26.0
14-20 yrs	—	0.3	3.2	1.5	—	1.1	5.0	5.0	—	—	16.1
21-27 yrs	—	—	14.2	—	—	0.3	0.5	0.8	—	—	15.8
28-36 yrs	—	—	6.2	—	—	1.1	0.5	0.5	—	—	8.3
Total	0.8	0.8	26.0	5.8	6.0	3.1	26.6	30.0	0.6	0.3	100

Education and marital status

The mothers utilising the services of the creches lived in the *jhuggi jhompri* colonies and the slum resettlement sites. There were 251 families living in 13 slum sites while 130 families had their residence on 10 construction sites. It was found that 82.2% of the mothers (N=381) were illiterate, 2.4% were literate but had no formal education, 8.4% had primary school education, 3.7% had finished middle school and 2.6% had completed higher secondary schooling. There were three women (0.18%)—2 of them were postgraduates and wives of doctors and one was a graduate (Table 3).

Table 3: Educational Level of the Mothers (N=381)

Educational Level	No	Per cent
Illiterate	313	82.1
Literate (no formal education)	9	2.4
Primary	32	8.4
Middle	14	3.7
Higher Secondary	10	2.6
Above Higher Secondary	3	0.8
Total	381	100.0

With respect to their marital status, 97.4% of the mothers (N=381) were married, 1.3% widowed and 0.5% deserted. The age at marriage of 95.4% of the mothers was 19 years and below, with 74.6% having been married in the age group 10-19 years. It is interesting to know that 16 mothers (4.2%) stated their age at marriage to be as late as 20-25 years (Table 4).

Table 4: Mothers' Age at Marriage (N=381)

Age at Marriage	No. of Mothers	% of Mothers
5-9 yrs	51	13.4
10-14 yrs	147	38.6
15-19 yrs	137	35.9
20-24 yrs	16	4.2
Not known	30	7.9
Total	381	100.0

At the time this study began seven mothers (N=339) were in the age group 15-19 years, 106 (31.3%) were between 20-24 years, 208 (61.4%) between 25-34 years and 18 (5.3%) 35 years and above. Forty-two mothers were not certain of their age. The age of their

husbands ranged from 20 to 59 years. Apart from 38 husbands whose ages were not known to their wives, 124 (36.2%) husbands (N=343) were in the age group 20-29 years, 163 (47-5%) were between 30-39 years, 50 (14.6%) were between 40-49 years and 6 (1.72%) between 50-59 years.

Family size

Of 251 families living in the slum sites, 140 had between 1-3 children; 99 families had between 4-6 children and 12 between 7-9 children. Of 130 families living on construction sites, 96 had between 1-3 children, 31 families had 4-6 children and 3 families had 7-9 children. The average number of children for families both in the slum and construction sites was 3.2. Table 5 shows the number of children of the women according to their place of residence on the construction sites or in the slum resettlement areas. It will be seen from Table 5 that, contrary to popular opinion about the fertility patterns of women in the low income groups, two-thirds of the women in this study (N=381) had a small family of between 1 and 3 children. It must, however, be noted that most of the women had not yet completed their reproductive cycle. Table 6 shows the number of children alive by age at marriage and present age of the women (N=339). A breakdown of the actual number of children each woman had is given in Table 7.

Table 5: Number of Children by Place of Residence of Mother (N=381)

No. of children	Construction sites		Slum sites		Total	
	No. of mothers	%	No. of Mothers	%	No	%
1-3	96	25.2	140	36.8	236	62.0
4-6	31	8.2	99	25 9	130	34.1
7-9	3	0.8	12	3.1	15	3.9
Total	130	34.2	251	65.8	381	100.0

In an earlier study of women in four *bastis* of Delhi (Singh and de Souza 1976:199), the mortality rate for children was 220 per 1000 live births in the age group 0-5 years. It was particularly high (444/1000) for the children of women construction workers. A high child mortality rate among construction workers in Delhi was also reported by Ranade (1975:11). Since infant and child mortality tends to be high among the urban poor, we enquired into the number of children lost to each family by death. Of the mothers (N=381), 236

Table 5: No. of Living Children by Age at Marriage and Present Age of Mothers (N=339)*

Mothers		No of living Children									Total
Age at Marriage	Present Age	1	2	3	4	5	6	7	8	9	
	15-19	—	2	—	—	—	—	—	—	—	2
	20-24	4	5	1	—	—	—	—	—	—	10
5-6 yrs	25-34	3	7	9	6	5	2	—	—	—	32
	35+	—	—	—	1	—	—	—	2	1	4
	15-19	2	2	—	—	—	—	—	—	—	4
	20-24	17	15	11	4	1	—	—	—	—	48
10-14 yrs	25-34	3	18	18	18	13	7	4	—	1	82
	35+	—	—	1	2	2	2	—	—	1	8
	15-19	1	—	—	—	—	—	—	—	—	1
	20-24	11	22	9	3	—	—	—	—	—	45
15-19 yrs	25-34	3	23	9	18	13	12	2	1	—	81
	35+	—	—	—	1	2	1	—	1	1	6
	20-24	2	1	—	—	—	—	—	—	—	3
20-24 yrs	25-35	1	6	3	2	2	—	—	—	—	13
Total		46	101	61	55	38	24	6	4	4	339

*42 mothers did not know their age at marriage

Table 7: Number of Living Children

Mothers		Children
No	%	No
50	13.1	1
115	30 2	2
71	18.7	3
61	16.0	4
44	11.5	5
25	6.6	6
6	1.6	7
5	1:3	8
4	1.0	9
Total 381	100.0	448

(61.9%) stated that they had not lost any child; 77 (20.2%) of the mothers had lost 1 child; 33 (8.7%) had lost 2 children; 24 (6.3%) had lost 3 children; 5 (1.3%) had lost 4 children and 2 (0.5%) had lost 5 children. Though two-thirds of the mothers had not lost any child, one-third had lost 1-3 children. This information can be regarded as only a

broad indication of the survival rate of the children of the urban poor. We did not inquire into the differential mortality rates of male and female children nor do we have information on the cause of death. A recent study (Simmons *et al* 1979) has suggested that in rural North India, tetanus accounts for a high proportion of neonatal deaths. As in a previous study of *basti* women in Delhi (Singh and de Souza 1976), so too in this, we found that the infant and child mortality among construction workers was higher than that of families residing in slum areas. This suggests that environmental factors, combined with the poverty of the families working and living on construction sites, are a serious hazard not only for the development of the child but for its very survival.

Studies of the squatter settlements in Delhi (Majumdar 1978; Singh and de Souza 1976) found that the urban poor tend to live in nuclear not joint families. In this study we found that an overwhelming majority of the women whose children were in the creches, live in nuclear families. This was particularly true of women construction labourers. This is not to say, of course, that these families do not maintain ties with the extended family in their village. The women construction workers, who rarely had their relatives with them in Delhi, reported that they were giving economic assistance to the members of the family in their village. Seventy-eight (62.4%) mothers did not have any dependants and of these 52 (41.6%) were urban migrants. Of 147 (37.6%) mothers who had dependants, 23 (18.4%) had one dependant; 9 (10.4%) 2 dependants; 4 (3.2%) had 3 dependants; and 5 (4.0%) 4 dependants.

Women's occupational patterns

The women workers in our study belonged to the informal or unorganised sector. Employment in this sector is mostly on daily wages, temporary, lacking both job security and the benefits available to women workers in the organised sector. As we noted earlier, most of these women were migrants from the rural areas of the States around Delhi, and they had come in the hope of improving their economic situation as petty traders and by carrying on their traditional occupational skills. Most of these women, when they came to Delhi, found themselves in the squatter settlements engaged in casual work on building sites or as unskilled factory workers, domestic workers, vendors and sweepers. Since these types of work fall within the unorganised sector, the working women in our study did not enjoy the benefits of statutory legislation which seeks to provide women workers with security and healthy working conditions. On the building sites the Contract Labour (Regulation and Abolition) Act 1970, sought to regulate building contractors and the working conditions

of women employed on construction sites. It has been found that the statutory obligations of building contractors regarding women workers and their children are poorly implemented, though there is evidence that, under pressure from voluntary organisations, financial assistance is given for the welfare of the children of women construction labourers. For example, building contractors contributed Rs 51,200 to a voluntary organisation for the maintenance of its creches in 1977-78.

The data showed that 128 (34.0%) of the women (N=381) were housewives rather than working women. Though these housewives were not wage earners, they were often self-employed and made important contributions to the family income by tailoring, cultivation of family-owned land, milk vending, grass-cutting and other activities of this kind that are characteristic of the informal sector. Though the earnings might be equal to that of wage earners, these women are not recognised as having any identify than other housewives, whose primary responsibility is to look after the welfare of the family within the home.

There was a concentration of women in three major occupational groups. One hundred and twenty-two of the women (N=354) were *mazdoors;* 59 (15.5%) were sweepers and 26 (6.9%) were domestic workers/*ayahs*. Table 8 gives a detailed breakdown of the number of days worked by the women in their different occupations. It will be seen that 246 mothers were able to work between 4-7 days a week, the majority 143 (37.5%) working 7 days We also attempted to find out the number of hours worked per day by the women in their respective occupations. Of 181 (47.5%) women workers had to work between 8-10 hours per day. the largest number 116 (30.4%) working 8 hours. Of these women 62 (16.3%) were employed as *mazdoors*, 25 (6.6%) as sweepers and 11 (2.9%) as domestic workers/*ayahs*. Of the 54 women who worked 9 hours a day 51 (13.4%) were employed *mazdoors* and the remaining as domestic workers and sweepers. Of the women working 10-12 hours a day, 8 (2.1%) were *mazdoors* and 2 (0 6%) domestic workers/*ayahs*. Of mothers working less than 8 hours a day, a majority (8.4%) were employed as sweepers. The difference in the hours of work put in by them was related to the part-time nature of their work in several private households. There were 11 (2 9%) domestic workers/*ayahs* who worked between 3-7 hours a day. Again this reflects the part time nature of this type of employment in middle class urban homes.

Husband's occupation

We had listed 92 occupations based on the industrial and occupational classification of the Central Statistical Organisation and

found that, while husbands were engaged in 43 occupations, mothers were restricted to only 17. It has been pointed out elsewhere (Majumdar 1978; Singh and de Souza 1976) that employment opportunities for men and women in the low income groups are greatly influenced by the cultural and religious definitions of women's work, by the traditional occupations associated with caste and by their own perceptions of appropriate work In an earlier study (Singh and de Souza 1976:75) women in four *bastis* of Delhi identified 44 high prestige occupations for men but only 19 high prestige occupations for women.

Though the husbands worked in a number of occupations, there was a concentration in a few occupations such as *beldars*, masons, *thekedars*, washermen, painters, petty traders There were 107 (28.1%) men who were *beldars:* 58 (15.2%) were sweepers; 27 (7.1%) were masons; 18 (4.7%) were office attendants; 14 (3 7%) were skilled factory workers; 12 (3.1%) were clerks; 10 (2.6%) were drivers. There were 25 husbands (6.6%) whose jobs we were not able to identify because their wives did not know the exact nature of their work; only 11 (2.9%) husbands were unemployed.

Husband's income

There were 102 (26.8%) husbands who were casual workers, mostly *beldars* and a few masons, with a daily wage of Rs 6-10. There was another group of 21 (5.5%) husbands who also received daily wages ranging from Rs 11-15; all of them were masons. Of those who were not on daily wages, 67 (17 6%) reported a monthly income between Rs 101-200; 82 (21 5%) Rs 201-300 and 40 (10 5%) Rs 301-400. Thus 272 husbands (71.4%) reported a monthly income of Rs 300 and less.

Of 107 (28.1%) *beldars*, 85 (22-3%) were on daily wages of between Rs 6-10 and only 2 (0.5%) Rs 11-15. Of 58 (15.2%) husbands who were employed as sweepers, 27 (6.8%) had a monthly income of Rs 101-200; 18 (4.7%) Rs 201-300. and the income of 8 (2.1%) was Rs 301-400 monthly. Among the husbands who were masons, 6 (1.6%) received a daily wage of Rs 6-10 and 15 (3.9%) Rs 11-15. There was one mason who was reported to receive a daily wage of Rs 16-20. Of 18 (4.7%) husbands who were office attendants, 5 (1.3%) had an income of Rs 101-200; 7(1.8%) Rs 201-300 and 3 (0 8%) Rs 301-400. There were 14 (3.7%) husbands who were skilled factory workers of whom 5 (1.3%) earned Rs 101-200 and 8 (2.1%) Rs 201-300 monthly. It should be noted that the monthly incomes reported here have to be accepted as approximations only, since the source of information was the mothers and not their husbands. In the case of construction workers on building sites, the wives knew exactly the

Table 8: Percentage of Women According to Days Worked by Occupation (N=381)

Occupation	0	2	3	4	5	6	7
Housewives	33.6	—	—	—	—	—	—
Compounder	—	—	—	—	—	0.3	—
Office Attendants	—	—	—	—	—	1.0	—
Cultivators	—	—	—	—	—	—	0.5
Grass Cutters	—	—	—	—	0.3	—	—
Milk Vendor	—	—	—	—	—	—	0.3
Tailors	0.3	0.3	—	0.5	—	0.5	—
Upholsterers	—	—	—	—	0.3	—	—
Shopkeepers	—	—	—	—	—	0.3	0.3
Mazdoors	—	0.5	0.5	2.4	1.6	4.5	22.6
Domestic Workers/Ayahs	—	—	—	—	—	1.8	5.0
Cooks	—	—	—	—	—	0.3	—
Dhobi/Presswalis	—	—	—	0.3	—	—	0.3
Sweepers	—	—	—	—	0.3	8.1	7.1
Unskilled/Factory Workers	—	—	—	—	—	0.3	—
Skilled Factory Workers	—	—	—	—	—	—	0.3
Unidentifiable	—	—	—	0.3	1.0	3.1	0.5
Unemployed	0.3	—	—	—	—	—	—
Total	34.2	0.8	0.5	3.4	3.4	20.2	37.5

wages received by their husbands. But women living in the relocated slum sites often had only a hazy knowledge of their husbands occupations, and the husbands, too, do not give precise information about their salaries to their wives.

Working mothers' income

Apart from 128 (33.6%) housewives, there were 116 (30.5%) mothers who were on daily wages of Rs 6-10. Most of these women were employed as *beldars* or mud and brick carriers. Sixteen (4.2%) women had a monthly income of Rs 26-50; 40 (10.4%) Rs 51-100 and 58 (15.2%) Rs 101-200.

We were not able to calculate the monetary value of the self-employed activities undertaken by some of the housewives for the support of the family. These activities included cultivation, grass-cutting and tailoring, which were undertaken to meet the needs of the family. Of those who were employed outside the home as wage earners, the vast majority had low monthly incomes. The mothers who reported a monthly income of Rs 51-100 were employed as domestic workers, *presswalis*, sweepers and grass-cutters; the women with an income of Rs 101-200 were office attendants and sweepers. A small number (2.6%) earned over Rs 200 as compounders and office attendants.

Family income

The total (joint) income reported by the mothers as presented in Table 9, shows that 31.6% of the families had a joint monthly income of Rs 101-300 while 204 (53.6%) had a joint monthly income of Rs 301-500, with 42.8% having a total monthly income of Rs 301-400. There were 33 families (8 6%) with incomes between 501-700 of whom 27 (7.1%) had incomes between Rs 501-600. There was one family which had an income of Rs 900-1000 and another above Rs 1,000 (these were the familes of a doctor and a milk vendor). The average total monthly income was Rs 328.43; for the construction site families it was Rs 346.44 and for those in the slum resettlement areas Rs 318.75. Table 9 shows that 133 (34.8%) families who had joint incomes of Rs 300 and below, met the income criteria stipulated by the Scheme.

From field observations as well as from the data on the health and the nutrition status of the children attending the creches, there is no doubt that these families belong to the urban poor. The living conditions of families located on the construction sites were harsh and stringent, granted that there are considerable variations between one construction site and another. The construction labourers lived in single room huts with low roofs and were surrounded by puddles of

Table 9: Total Monthly Income (in Rupees)

Income Level	No. of Families	% of Families
Not known	9	2.4
26-50	2	0.5
51-100	10	2.7
101-200	33	8.6
201-300	88	23.0
301-400	163	42.8
401-500	41	10.8
501-600	27	7.1
601-700	5	1.6
701-800	—	—
801-900	—	—
900-1000	1	0.3
1000 & above	1	0.3
Total	381	100.0

water (our field work was done during the rains). Because of the lack of drainage there was hardly any space for the children to move about and play. Neither electricity nor tap water was available on most of the sites. The floors of the *jhuggis* were of damp mud and, because of the rains, cooking was done inside in a smoke-filled corner of the *jhuggi*.

The conditions of the families living in the relocated sulm sites were not much better. Although the Government had allocated to the people land and loans for building, many of the slum sites had inadequate public lavatories, and the few that were there were poorly maintained and thus constitued a health hazard. The hand pump and water tap were at some distance and water had to be carried for cooking, washing and drinking. As there was no public bath, bathing along with the washing of clothes was done near the taps. The women who worked as domestic workers or unskilled labourers in factories had to fetch water in the early hours of the morning and store it in drums or earthen *matkas*.

In an exercise to set the minimum need-based wage for selected urban centres of India, Fonseca (1975: 155-169) calculated the cost of the minimum requirements of an industrial working class family consisting of three adult units—father, mother and two children below the age of 14 years. Taking into consideration the food, clothing and housing requirements of an urban working class family, he estimated the minimum need-based wage for Delhi at Rs 166.25 for 1967 and Rs 171.92 for 1968. However, in a later paper (Fonseca 1976:119), referring to his earlier exercise in calculating the minimum need-based wage for the years 1967-68, he pointed out that 'Since then, inflation-

ary trends in the prices of working class commodities have been so extensive that the need-based wage levels would have to be about doubled to cope with the increase in the cost of living.' He also noted (*ibid.*) that 'To a large extent the need-based wage could be used to mark the poverty line in the urban centres of India.' Thus if the estimated minimum need-based wage is taken as the norm, the average family income of the sample indicates that many of the families whose children use the creches are in fact below the estimated poverty line.

Commitment to employment

When the mothers (N=125) who participated in the intensive study of 7 creches were asked whether they would still want to work if their husbands had a higher income, 45 (36.0%) stated that they would work full time because of economic reasons; 10 (8.0%) would prefer part-time work in order to look after their children; 12 (9.6%) would prefer not to work so that they would have more time to look after their children. To an extent, the question of withdrawing from the labour market is not realistic for women in low income groups because their earnings are used not for 'extras' but to meet the basic needs of the family—food, clothing, health.

We found that the women in our sample did not believe that creches are a functional equivalent of the home and the personal love and care of the mother. This attitude towards arrangements for child care that are substitutes for the mother seems to cut across income levels as well as cultural boundaries. The unfavourable attitude of working women to creches is noted by Wadhera (1976:119) and Ziemska (1978:70) who, in her study of child care in Poland concludes that 'only those parents send their children to the creche who cannot solve the problem of child care in any other way.' These observations have important implications for the conceptualisation of the creche as a specialised form of early child care and for social policy regarding women's participation in the labour force of the urban informal sector.

In the section that follows we will present the data on the children attending the creches. Of the mothers (N=125), 82% had one child in the creche; 21(16.8%) had 2 children, 1 (0.8%) three children. The age of the children in the creches ranged from one month to 5 years. Thirty (6.7%) children were between 1-6 months; 54 (12.1%) 7-12 months; 131 (29.3%) between 1-2 years; 156 (34.9%) between 2-3 years; 56 (12.8%) between 3-4 years; 18 (4.0%) between 4-5 years, and one child was 5 years. These children (N=448) were divided almost equally by sex, 223 (49.9%) being females and 224 (50.1%) males.

Health and nutrition

When the mothers were asked about the health of their children, 188 (42.1%) of the children were stated to be in good health; 158 (35.3%) were said to be of average health (i. e. occasionally sick) and only 101 (22 6%) in poor health (i.e. frequently sick). But when we attempted to assess the nutrition and health status of the children by using the Shakir Strip, we found that a high proportion of them were undernourished and in poor health. The most reliable method of assessing the nutritional status of young children is to find the weight of the child and to compare this with the Harvard Standard. For practical reasons we did not use this method but rather chose to use the Shakir Strip because of convenience (Morley 1979), given the brief period of the field work and the conditions in which it had to done. We had used the Shakir Strip in a previous study (Singh and de Souza 1976) and the methodology has been explained in detail there. If the measurement shows *green* on the Shakir Strip, it is an indication that the child is adequately nourished and growing well. If it shows *yellow*, it means that the child needs more nourishment. If the measurement shows *red*, it is an indication that the child is suffering from severe malnutrition. The Shakir Strip is a device that can be used easily by creche personnel, illiterate mothers and even by children (Aarons and Hawes 1979) to measure the nutrition and health status of Under Fives. Used on children 1-5 years of age, the upper arm measurement indicates malnourishment if it is from 12.5-13.5 cms (yellow), severe malnutrition if it is below 12.5 cms (red) and adequate nutritional status if it is 13.5 cms and above (green).

We used two methods to obtain information on the health of the children: one, as already stated above, was to ask the mothers to indicate their perception of the health of their own children; the other source of information was the data on the mid-arm circumference measurement obtained by the use of the Shakir Strip. While mid-arm circumference measurement gives only approximate indications of the nutritional status of the child, and in this study we relied only on this single diagnostic tool, the data we obtained was consistent with the findings of all-India surveys for children belonging to the underprivileged sections of society (Gopalan 1974:104). When we are dealing with children from the low socio-economic group, there is a presumption that about 97% of the Under Fives are suffering from some degree of malnutrition. In the Country-wide study referred to above (Gopalan 1974), 18% of the children from the low socio-economic group were suffering from Grade III malnutrition (weight deficit of 40% or more), 65% of them from Grade II malnutrition (25-40% weight defiicit) and 14% from Grade I malnutrition (10-25% weight deficit). Thus, though the diagnostic tools we used

could have been more refined, they provide a data base that is sufficiently broad to support both policy and programme formulation in the area of health and nutrition. Table 10 shows that the measurement of 135 (37.29%) children was *green* (13.5+ cms) showing that the children were adeqately nourished; of these 32 (8.84%) were between 3-4 years; 55 (15.19%) between 2-3 years, and 40 (11.05%) between 1-2 years. The measurement of 91 (25.13%) children was *yellow* (13.5-12.5 cms), indicating that these children were suffering from some degree of malnourishment. Of these 6 (1.6%) children were between 4-5 years; 12 (3 31%) were 3-4 years 44 (12.15%) were 2-3 years, and 29 (8.01) were 1-2 years.

Table 10: Shakir Strip Upper Arm Measurements (N=362)

Children's Age (in mths)	Arm Circumference Measurement									
	No Information		Green		Yellow		Red		Total	
	No	%	No	%	No	%	No	%	No	%
12-23	—	--	40	11.05	29	8.01	62	17.13	131	36.19
24-35	1	0.30	55	15.19	44	12 15	56	15.47	156	43.10
36-47	—	—	32	8.84	12	3.31	13	3.59	57	15.74
48-59	—	—	8	2.21	6	1 66	4	1.10	18	4.97
Total	1	0.30	135	37.29	91	25.13	135	37.29	362	100.00

Code : Green 13.5+ cms; Yellow 13.5-12.5 cms; Red 12.5— cms
Significant at $p < .05$

Granted that the mid-arm measurement by the Shakir Strip an provides an approximate indication of nutrition and general health status of Under Fives (Singh & de Souza 1976:61), the data show that 226 (62.42%) children were suffering from some degree of malnourishment and a high proportion of them (37.29%) from severe malnutrition. Among the children who were suffering from severe malnutrition, most of them, 118 (32.6%) were in the age group 1-3 years, more than half of them being between 1-2 years. Of the children who were suffering from malnourishment, 73 (20-16%) were in the age group 1-3 years. The data show that the incidence of severe malnutrition is largely among children 1-3 years of age while some malnutrition appears to be more or less equally spread in this age group. Of the children (131) in the age group 1-2 years, 91 (69.46%) were malonurished; and of 156 children in the age group 2-3 years, 100 (64.10%) also gave indications of malnourishment.

We attempted to find out the differences in the nutritional status of the children by sex and age according to their place of residence in

the slum resettlement areas and the construction sites. Table 11 for the slum sites shows that 62.02% of the children in the slum sites in the age group 1-2 years were undernourished. This was also the case with 61 9% of the children (N=126) between 2-3 years and 42.59% between 3-5 years. If both male and female children were taken together 30 88% of them were severely malnourished: of these 14.28% were males and 16.60% were females. Of the total number of male

Table 11: Nutritional Status of Children in Slum Resettlement Areas (N=259)

Age in mths	Arm measurement	Males		Females				Total	
		No	%	No	%	No	%	No	%
12-23	Green	18	6.95	12	4.63	30	11.58		
	Yellow	11	4.25	9	3.47	20	7.72	79	30.50
	Red	13	5.02	16	6.18	29	11.20		
24-35	Green	21	8.11	27	10.42	48	18.53		
	Yellow	16	6.18	23	8.88	39	15.06	126	48.65
	Red	21	8.11	18	6.95	39	15.06		
36-59	Green	20	7.72	11	4 25	31	11.97		
	Yellow	6	2.32	5	1.93	11	4.25	54	20 85
	Red	3	1.16	9	3.47	12	4.63		
Total		129	49.82	130	50.18	259	100 00	259	100.00

children (N=129) in the slum sites, 28 68% were suffering from severe malnutrition in the age group 1-5 years; for females (N=130), the percentage was 33 07. Table 12 shows that on the construction sites

Table 12: Nutritional Status of Children in Construction Sites (N=102)

Age in mths	Arm measurement	Males		Females				Total	
		No	%	No	%	No	%	No	%
12.23	Green	3	2.94	7	6.86	10	9.80		
	Yellow	6	5.88	3	2.94	9	8.82	52	50.98
	Red	16	15.87	17	16.67	33	32.35		
24-35	Green	2	1.96	5	4.90	7	6.86		
	Yellow	3	2.94	2	1.95	5	4.90	29	28.43
	Red	6	5.88	11	10.78	17	16.67		
36-59	Green	7	6.86	2	1.96	9	8.82		
	Yellow	6	5.88	1	0.98	7	6.86	21	20.59
	Red	2	1.96	3	2.94	5	4.90		
Total		51	50.00	51	50.00	102	100.00	102	100.00

63.46% of the children between 1-2 years were suffering from severe malnutrition. This was also the case with 58.62% of the children between 2-3 years and 23.80% of those between 3-5 years. Of the total number of children on the construction sites (N=102), 53 92% were severely malnourished and of these 22.53% were males and 30.39% females. Of the total number of male children (N=51) on the construction sites, 47 05% were severely malnourished and this was also the case with 60 78% of the female children (N=51).

Table 11 shows that if the male and female children measuring *yellow* or *red* were taken together, 57.91% of them were suffering from some degree of malnourishment and of these 27.02% were males and 30.88% females. Of the total number of male children (N=129), 54.26% were suffering from some of malnutrition and the percentage was 61.53 for female children (N=130). Of all the children on the construction sites both male and female (N=102), 74.50% were suffering from some degree of malnourishment and of these 38.23% were males and 36.27 females. Of the total number of males measuring *yellow* or *red* (N=51), 76.44% showed signs of malnourishment and for females (N=51) the percentage was 72.54.

The data show that there is extensive malnourishment among the underprivileged children attending the creches. The picture is particularly alarming in the case of the children on the construction sites where 53.92% of then showed signs of being severely undernourished in contrast to 30.88% the children in the slum resettlement areas. This contrast is not so sharp if the children measuring *yellow* or *red* are considered as a group. Tables 11-12 tend to support the findings of other studies that the female children, because of cultural reasons, show higher levels of malnutrition than male children. Thus, on the construction sites 60.78% of the female children were suffering from severe malnutrition as compared with 47.05% of the male children. On the *yellow* or *red* measurements, however, there were more male children (76 47%) who were malnourished as compared with 72.54% of female children. But in the slum resettlement sites more female children (61.53%) were malnourished as compared with 54.26% of the male children.

The analysis we have presented above of the nutritional status of the children who were using the creches, shows that top priority has to be given to adequate nutrition. The overall picture that emerges is that the children in the younger age group 1-3 years are already suffering from various degrees of malnutrition, and at this stage their physical and mental development could be affected, even if not irreversibly (Levitsky 1978:3). It is obvious that, given the poverty of these families in the informal urban sector, there is no hope of these children getting more and better food unless they

receive it at the creche. Thus it seems most inevitable that the amount allocated for nutrition in the Scheme has to be substantially increased.*

We also made an attempt to relate the health of the children to breast-feeding. It was found that of 153 children who were breast-fed, their mothers, stated that 60(39.2%) were in good health; 54(35.3%) in average health and 39 (25.5%) in poor health. Regarding 294 children who were not breast-fed, their mothers stated that 188 (43.5%) were in good health; 104 (35 4%) were of average health and 62 (21.1%) were in poor health. This information is no doubt impressionistic since these illiterate mothers defined good health in terms of whether the child ate well and bad health if it was suffering from some kind of diarrhoea.

From the data presented in Table 13 on children who were breast-fed, and those who were not breast-fed, it is not safe to conclude that the practice of breast-feeding is declining, particularly since some children were being breast-fed even after the age of 3. What seems probable is that the children in the age group 1-12 months were not being breast-fed because of the poor health and nutritional status of the mother (see UNICEF 1967:18). This aspect deserves to be studied more in depth than can be done here.

Alternate forms of child care

In order to assess the need experienced by women from low income groups for the specialised child care which the creche provides, an attempt was to find out who had looked after the children before they were placed in the creches. The data on 144 children who were attending 7 creches run by 5 voluntary organisations showed that, in the case of 81 children, the mother herself looked after them. The mothers of 45 of these children were housewives, and the mothers of another 12 had just started working; thus there were only 24 children who were looked after by working mothers before they were placed in the creches. A striking aspect of this information is that only 11 children were looked after by their siblings and more brothers (6) than sisters (5) were entrusted with child care responsibilites. It is also seen that in the nuclear type of family which is most prevalent among the urban poor (Majumdar 1978; Singh and de Souza 1976), grandparents and their relatives are not available to look after the young children.

For the working mother, therefore, it would seem that the alternatives to the creche are few and that the creche is the most preferred from of child care. The mothers of 8 children had previously taken their children to the place of work and the mothers of 2 children stated that they had no one to look after them while they were

* This point has been discussed in detail elsewhere and alternative models of funding have been proposed and analised (de Souza 1979)

Table 13: Percentage of Children According to Breast-Feeding and General Health (N=447)

Child's Age	Breast-fed				Nct Breast-fed			
	Good	Average	Poor	Total	Good	Average	Poor	Total
1-6 mths	6 5	2.6	2.6	11 8	1.7	0.7	1.7	4.1
7-12 mths	7.8	7.2	7 2	22 2	3.4	1.4	2.0	6.8
1-2 yrs	17.6	17.6	13.1	48.4	6.8	8 2	4.4	19 4
2-3 yrs	5 9	5.2	2.0	13.1	22.1	16.3	7.8	46.3
3-4 yrs	1.3	2.0	0.7	3 9	6.8	6.1	4.4	17.3
4-5 yrs	—	0.7	0.7	0.7	2.4	2.7	0 7	5.8
5 yrs & above	—	—	—	—	0.3	—	—	0.3
Total	39.2	35.3	25.5	100 0	45.3	35.4	21.1	100 0

at work. In an earlier study of migrant women in four *bastis* of Delhi (Singh and de Souza 1976:87), it was found that 73% of the women had no secondary help to care for their children and 40% of them had to leave their children alone ('in the care of God'). In the case of 30% of the women, the children were taken to the workplace or the mothers had to withdraw from the labour force. A study of working mothers in Delhi and Allahabad (NIPCCD 1978:92) also reported that 13% of the parents left their children on their own as they had no one to look after them. Another study of 700 families in Pune (Aphale 1976:147) reported that there were two types of arrangements for child care among mothers who worked as casual labourers. The children were taken to the workplace or carried in shawls slung around the neck or left to play unattended outside the locked hut. In a study of 1,000 young women workers in Delhi from the middle income groups, Wadhera (1976:118) found that the most frequently used arrangements for child care were servants, family members, neighbours, creches and nursery schools. It is, therefore, clear that for low income women workers, the creche functions as a social necessity, making it possible for the mother to contribute to the family income and at the same time have reasonable assurance that her young children will be cared for during her absence from the home (Cousins 1979:41). It must always be remembered that in our culture women have primary responsibility for the running of the home and the rearing of the children even when they are working mothers. Even in other countries there is no clear and generally accepted definition of the distribution of responsibility for child care between the family and the community (Vogel 1976:24).

How did the mothers become aware of child care services provided by the creches? As one would expect in a social environment in which literacy is not a general characteristic, that verbal communication through a social network operating in the immediate neighbourhood of the women, was most effective. Of the mothers (N=125), 66.4% came to know about the creches through the creche teachers. Another effective channel of communication was the network of friends and relatives (2.8%) and neighbours (9.6%). The data suggest that, as the creche teacher occupies an important position in the communication network operating in the social environment of these women, she could be used to win greater acceptance of the relatively new notion of child care by non-familial agencies. Properly trained, the creche personnel could function not only as a teachers in the creche but also as informal educators in the local community.

When housewives who also send their children to the creches were asked the reason for doing this, 21 mothers stated that they wanted their children to acquire early the habit of going to school;

16 mothers thought that in the creches their children would be disciplined and brought up in good company; 3 mothers were going for craft training so it was convenient to have their children in the creche attached to the *balwadi;* 5 mothers stated that domestic work was more easily done when the children were in the creche; 2 mothers were looking for a job; 4 mothers stated that their younger children insisted on going to the creche since their elder siblings were in the *balwadi;* one mother sent her child to the creche since she was in poor health; 2 mothers wanted their children to attend the creche to get more nourishment. In one creche the mothers were pressured by the teacher to have their children admitted.

It should be pointed out here that few mothers had a clear idea of the nature of the creche. The more commonly expressed view was that the creche was a kind of 'nursery school.' This confusion is to some extent understandable, because often the creche is attached to a *balwadi.* Further, since working mothers have little time to spend in the creche, being in a hurry to go to work in the morning and again to return home in the evening, they have only a vague idea of the services the creche actually provides their children.

In the intensive study of the children in 7 creches it was found that in one creche 6 out of 14 children had been there between 2-9 months and 8 between 1-2 years. In another creche 8 out of 15 children had been in the creche for 2-6 months In a third creche, which was newly opened, 24 out of 28 children had been there for 1-3 months, At a fourth creche, also newly started, 35 out of 36 children had been there for only one month. In three other creches 37 children had been in the creche between 1-8 months and 20 children for 1-2.5 years. Thus approximately 50% of the children had been using the creches for 1-2 years on an average—certainly an adequate time for mothers to assess the benefits derived by their children The data are insufficient to allow us to infer confidently that the duration of stay in the creche was related to the mothers' satisfaction with the services actually provided. However, the mothers' evaluation of the performance of the creches was largely positive.

To sum up, we examined in this chapter the distinctive socio-economic characteristics of the mothers and also the health and nutritional profile of the children using the creches aided by the Scheme. A high proportion of the mothers were 'distress migrants' from the rural areas of Uttar Pradesh, Punjab, Haryana and Madhya Pradesh who appeared to have become permanent settlers in the informal urban sector of Delhi. The other families were 'temporary migrants' from Rajasthan who come to work as construction labourers in Delhi and returned to their village at more or less regular periods during the year. A vast majority of the women were illiterate, and most of

them were living in nuclear families whose total monthly income identified them as belonging to the underprivileged urban poor. The occupational range of these women was highly restricted, most of them were being concentrated in low status occupations that were characterised by low wages and job insecurity.

There were 'housewives' in our study whose children were attending the creches, but these women did unpaid work which had important economic implications for the well-being of the family. Particularly for urban women in the low income groups, the distinction between 'working mothers' who are economically active outside the home and 'housewives' who also work on unpaid jobs outside the home (e.g. grass-cutters) is ill-defined and, therefore, this should be taken into consideration when the criteria of eligibility are defined for admission to the creches. Thus this study shows that not only for working mothers but also for housewives, in the sense explained above, alternative arrangements for child care such as creches may well function as a social necessity.

The health and nutritional profile of the children using the creches shows that two-thirds of the children (62%) were suffering from malnutrition, and a high proportion of them (38%) were severely malnourished. When the children were categorised according to the place of residence in the slum resettlement areas and the construction sites, it was found that malnutrition was particularly high among the construction site children, Among both categories of children, there was a high incidence of some form of malnourishment and generally, female children were more malnourished than male children.

REFERENCES

Aarons, A., and Hawes H., *Child-to-Child* (London: Macmillan, 1979)

Aphale,C.A., *Growing Up in an Urban Complex* (New Delhi: National, 1976)

Cousins, William J, and Goyder, Catherine, *Changing Slum Communities* (New Delhi: Manohar Publications, 1979)

de Souza, Alfred, *The Indian City: Poverty, Ecology and Urban Development* (New Delhi: Manohar Publications, 1978)

————, *Children in a Creches: Day Care for the Urban Poor* (New Delhi: Intellectual Publishing House, 1979)

Fonseca, A.J., *Wage Issues in a Developing Economy* (New Delhi: Oxford University Press, 1975)

'Development Strategies for New Development Criteria,' *Social Action*, 26 (n.2, April 1976), pp. 111-123

Gopalan C., 'Some Aspects of Nutrition in India,' in Ashish Bose *et al.*, (eds.) *Population in India's Development 1947-2000* (New Delhi: Vikas Publications, 1974)

Levitsky, David, 'Malnutrition and Brains,' *Development Digest*, XVI (n.2, April 1978), pp. 3-9

Majumdar, T. K., 'The Urban Poor and Social Change: A Study of Squatter Settlements in Delhi,' in Alfred de Souza *The Indian City* (New Delhi: Manohar Publications, 1978)

Morley, David, 'International Year of the Child: A Time to Look at Child Health,' *Social Action*, 29 (n.3, July 1979), pp. 212-222

NIPCCD, *Working Mother and Early Childhood Education* (New Delhi: National Institute of Public Cooperation and Child Development, 1978)

Simmons, George B., *et al.*, 'Some Aspects of Infant and Child Mortality in Rural North India,' *Social Action*, 29 (n.3, July 1979,) pp. 249-269

Singh, Andrea M., and de Souza Alfred, 'The Position of Women in Migrant Bastis in Delhi,' Report Submitted to the Department of Social Welfare, Government of India (New Delhi: Indian Social Institute September, 1976), mimeo

Singh, G. P., and Ranade, S. N., *Women Construction Workers*. Reports of Two Surveys. (New Delhi: Indian Council of Social Science Research 1975)

Wádhera, Kiron, *The New Bread Winners* (New Delhi: Vishwa Yuvak Kendra, 1976)

Ziemska, Maria, *Early Child Care in Poland* (London: Gordon and Breach, 1978)

Book Reviews

MOVING CLOSER TO THE RURAL POOR: SHARED EXPERIENCES OF THE MOBILE ORIENTATION AND TRAINING TEAM. New Delhi: Indian Social Institute, 1979. Pp. 95. Rs 10

This book is divided into three sections. The first section is written by the Director of the team Henry Volken. After introducing the members of the team and their aims and objectives, this section deals with two basically different training experiences. The first is the work done by the team with voluntary organisations i.e., the orientation and self-evaluation seminars and the methodology followed in them The second half of this section describes the work done with the people in the villages in an effort to gain credibility with the voluntary organisations themselves. It narrates some success in this work with the people, the most remarkable being the health insurance scheme set up in a village of Nalgonda district. This section stresses the need to listen to the people, their wisdom, the team's efforts to act as links between government agencies and the people and it ends up with the description of various improvements which the author optimistically describes as 'structural changes.'

The second section written by the team's agricultural expert Julian Gonsalves, gives an intersting account of the team's efforts to teach agriculture. The insistence is on 'adequate technology, training local trainers, and a pedagogy which gives priority to practical work, giving as much as 9 out of 10 hours to it.' This means that most of the training is given in their own fields. The author makes much of the wisdom of the local farmers and makes a plea to preserve traditional knowledge and practices.

The third section briefly narrates the work of the team on community development. This section describes the old approach and the new approach to health, the training of health workers and the methodology followed in it and the efforts made by the team to collaborate with government. It concludes with the explanation of the role of community health in development.

This book is a step in the right direction. First, it is based on the right assumption that much more could be achieved by many existing voluntary organisations if their skills were to be improved through adequate training Secondly, the book's insistence on 'people oriented projects' and its underlying faith in the people together with its practical applications: communication is seen as a way of relating to others (p. 16); the process of decision making is considered as more important than the targets (p. 21); and education is seen 'as a basis of organisation' (p. 5-6) learning from the people is

accepted as a value; all these are things worth thinking about and imitating.

The book is good as far as it goes, but one would have expected more from a team of experts. This may be due in part to the very structure of the book. Its first three aims (p.9) have in mind the training of voluntary organisations. The fourth one is to teach the rural people themselves but for an *ulterior motive:* to gain credibility with voluntary organisations. Herein lies the main weakness of the book, aggravated by the fact that there is no separate treatment of the two teaching experiences (that of the voluntary organisations and of the people). While the team seems to have both clear objectives and well thought out methodology in their training courses for voluntary organisations, their educational approach to the rural population does not spell out a well defined educational philosophy which results from a serious study of the target population and their present state of development (or as Paulo Freire says, their present stage of consciousness). This leads to further unfortunate results; no clear goals are indicated which form part of an overall strategy and as a result there can be no reality testing or an evaluation which measures the efficacy of the training imparted from the results of training (while the book does speak of self-evaluation it refers to a normative one i.e., one which judges performance according to certain norms). This lack of both clear goals and underlining philosophy is a very serious shortcoming. Many readers of the book may be led to believe that education simply means imparting information regarding government resources, better agricultural methods, or ways to prevent diseases. It is true that the book does stress the importance of people's organisation; but it does not tell us how the transition from mere 'gregariousness' into an organised community takes place; it does not explain that lack of organisation ability, lack of adequate agricultural technology and unscientific agricultural practices are all factors which are interrelated; for, as Freire explains, they all belong to the same stage of consciousness. Seen in this light, the main aim of education becomes to help people move from magical into critical consciousness; teaching agriculture, community development, or better hygiene, then become means to achieve a loftier goal.

The same may be said of the structural changes mentioned in pages 27 and the following. The small structural changes approach may be the only politically viable alternative, nay more, it may even be the only way out; but it has to be the first step in a clearly defined overall plan.

One last point to conclude. This reviewer, having taught villagers for several years now, greatly enjoyed the book's section on

agriculture, and would like to share with the authors, his team's experience in this area. Agricultural development presupposes four things: (i) appropriate infrastructure, (ii) managerial skills, (iii) adequate capital and (iv) agricultural technology. The book being reviewed very wisely insists that the technology imparted be consistent with the farmers' capacity to receive. It has been our team's experience that this approach does achieve initial good results. These, however, often prove shortlived when the other inputs (managerial skills and capital) are not provided.

J. M. Heredero

MIGRANT WOMEN SPEAK. Jean Guoyt, Ruth Padrun, Evelyne Dauphinet, Marianne de Mestral, Doriana Giudici, Chantal Scheidecker. Geneva: World Council of Churches and London: Search Press Ltd., 1978. Pp vii+164. SwF 11.50

Numerous studies have been made of migrants and particularly of migrant workers in Europe and the U.K. by organisations such as the Institute of Race Relations, OECD and the ILO. This book is different from the other studies of migrants because it deals exclusively with women migrants and their problems from the women's point of view. Briefly, the situation of women migrant workers is one of cumulative discrimination because 'to an even greater degree than the men, the women are alienated, exploited and oppressed' as *migrants*, *wives* of immigrants, *foreign women*, *women* and as *mothers*. Women migrants from Italy, Portugal, Tunisia and Morocco express themselves with remarkable perceptiveness about the conditions in which they have to live and work. They are mostly uneducated, condemned to unskilled work, given the jobs that are hardest and most unpleasant in factories and workshops, or else they are employed as domestic workers; their life is marked by isolation, loneliness, the longing for occupational training and continual anxiety in the management of their family life and the education of their children.

The need of occupational training is well expressed by a Moroccan housemaid who was doing some vocational training. She said: 'If I want to keep my independence—and for me that's the only thing that counts—I must do some occupational training; that way if I return home I could work, earn my living—be independent. I don't want to be exploited by a husband. I think that to gain their freedom, women must have a skill of some kind.' An Algerian woman, 23 years old, expressed her feeling of isolation thus—'I didn't know anyone, I felt very isolated and there was no one I could talk to about my problems—apart from my mother.'

Because of problems with language, migrant women have few social contacts outside their own community, minimum dealings with the authorities who are looked upon with fear and suspicion, and they are continually harassed by their employers particularly if they know they are dealing with illegal migrants. However, even among the migrants it is not easy for the women to create bonds of solidarity in the face of hostility and exploitation. Caught between two cultures the women find it difficult to maintain a distinctive cultural identity in the socialisation of their children and become aware that they themselves must be open to change. As an Algerian woman, mother of eight children, said: 'How are things going to change if it's the women who don't want to change?'

Through a process of awareness or conscientisation, a group of women from Italy, Spain, Greece, Yugoslavia and Switzerland met in Zurich in February 1974 to discuss the problems of migrant women and they framed a manifesto which touched upon employment problems, the family situation of migrant women particularly those with under-age children, education, health, security, housing and mobilisation to assert their political rights.

From what has been said above it will be clear that this is more than a book. It is a profoundly human document which challenges the conscience of the developed societies which under the euphemism of 'guest workers,' keep thousands of innocent men and women migrant workers in conditions of poverty, powerlessness and oppression.

SOCIOLOGY OF A GROWING TOWN. R. C. Sarikwal. Delhi: Ajanta Publications, 1978 Pp. xxxi+350. Rs 80

This book is a revised version of a painstaking doctoral dissertation on Ghaziabad, a 'growing town' in Uttar Pradesh. In the Master Plan of Delhi, Ghaziabad was expected to function as a 'ring town,' but it would appear from this study that, though Ghaziabad has been influenced by its proximity to Delhi, it has developed in a fairly autonomous manner. The author has packed this book with an immense amount of information from census data and other records, and urban planners will find this information useful; so will scholars and students of urbanisation in India. However, it must be stated that this very strength of the book is also its weakness, because the author is largely unable to integrate the conceptual and empirical aspects of the study.

The first section of the book presents the obligatory review of literature, and already here one gets the feeling that what is important is to briefly identify numerous theories of urbanisation rather

than to focus on only those theoretical formulations that are relevant to this study of Ghaziabad. The second chapter contains a lot of data on urbanisation in India and Uttar Pradesh which, though interesting and useful, could be considered mere padding for the purpose of this study. This inability of the author to focus on the specific aspects relevant to this study is also seen in the third chapter dealing with urbanisation in which a lot of information is culled from the decennial censuses Because of this mode of organising the study it is only on page 54 that the author identifies the objectives of his study and the hypotheses he intends to test. Apart from the census data and other resources used by the author there is also a random sample of 250 households consisting of 707 males and 493 females. The interview data are largely used in testing the structural functional differentiation which, it is hypothesised, takes place because of urbanisation The latter sections of the book are concerned with studying the relationship between demography, morphology, occupational structure, industrialisation and structural functional differentiation in relation to urbanisation.

The macro and micro data presented by the author suggest that there is a strong urban-rural linkage as can be seen from the age groups in the population, a substantial proportion of the population (41% according to the 1961 Census) being in the age group 0-14 years. The data on the sex ratio shows that there has been a slight decline in the number of females but this seems not so much evidence of the process of urbanisation as indicative of the pattern of male migration that is characteristic in north India. It would seem that the morphology of Ghaziabad as explained in terms of a theory of the urban structure does not indicate the kind of transformation which is commonly associated with the process of urbanisation.

This is also seen in the occupational pattern which did not show any considerable change, the bulk of the employment being in the tertiary rather than the secondary sector. This would suggest that, as the author rightly puts it, that industrialisation has not led to urbanisation either in Ghaziabad or elsewhere in India. The section in which the author tests the structural functional differentiation, presumably brought about by urbanisation in Ghaziabad, is probably the weakest of this book. The author makes inadequate and unconvincing use of his interview data and it is difficult to agree with the rather facile interpretations he gives. For example, the data on religion are too easily interpreted as showing the growth of a secular attitude. Perhaps in attempting to be comprehensive, the author can only provide a discussion that is incomplete and unsatisfactory.

It is strange that in spite of a growing body of literature on colonial influences on urbanisation in India, there is hardly any

mention of the colonial connection in the development of urbanisation in this book. It is true, as the author points out, that industrialisation did not lead to urbanisation in India as it did in the UK. But this statement requires to be analysed from the point of view of colonial urban policy and the purposes it had to serve. This has been done recently by A. D. King, *Colonial Urban Development* (London, 1976) and also by Sten Nilsson, *The New Capitals of India, Pakistan and Bangladesh* (London 1973).

The Bibliography is comprehensive in the sense that it includes all the traditional sources, yet it is incomplete because of the notable absence of recent studies on urbanisation in India and other developing countries which analyse the political and ideological dimensions of the process of urbanisation. What was the point, one wonders, of the UGC subsidising the publication of this book when it is priced at Rs 80!

THE POVERTY CURTAIN: CHOICES FOR THE THIRD WORLD. Mahbub Ul Haq. New Delhi: Oxford University Press, 1978. Pp. xvii+247. Rs 25

This volume, the fascinating autobiography of a development economist of his experience as Pakistan's chief planner, is written in a style that belies the traditional image of a purveyor of the 'dismal science,' so often applied to economists and the science of economics. It contains a very personal and human account of the way development concepts and strategies have evolved over the last forty years. But it is also a candid confession of the failures of a highly trained professional who has been in charge of shaping his country's planning policies for over thirteen years.

Mahbub ul Haq begins his memoirs with a typical neo-classical flourish, 'A poverty curtain has descended right across the face of our world, dividing it materially and philosophically into two different worlds, two separate planets, two unequal humanities—one embarassingly rich and the other desperately poor.' The reasons for the divergence and the attempts to narrow the divide so as ultimately to mesh the two worlds into a single planetary economy in which the benefits will be equitably distributed is the theme of his appeal.

He then describes the seven sins of development planning. They are worthwhile mentioning: the numbers game or the exclusive interest in comparing GNP figures, the excessive love for economic controls as opposed to encouraging an incentive system, the total illusion regarding the omnicompetence of investment, the contagion of development fashions implying constant shifts in policy, the neg-

lect of human resources, and the resulting tragedy of growth without justice.

He therefore argues for a new perspective for development; its essential objective being an outright attack on the worst forms of poverty. This would take care of GNP. Indeed the great problem to be tackled is not so much production, as distribution of the surplus in production. And his solution, to be highly recommended, is that more production and better distribution must be generated at the same time. He is in favour of outward looking strategies relating to development assistance, when he discusses the international aspects of the new development strategies. National policies of reforming local structures should not be so emphasised as to neglect the obligations that the embarassingly rich countries have towards their poor neighbours, especially in the provision of basic opportunities for them to participate in world trade, and in assisting them in their struggle against mass poverty through a reform of the international structure of control over raw materials, markets and distribution of the surplus.

The second part of the book describes the shock waves created by the Club of Rome's *Limits to Growth* publication both in the developed and the developing world, and the consequent demands for worldwide control of resources and environmental pollution as well as population growth. The contrasting attitudes of rich and poor towards this report of the Club of Rome at the time has persisted to our days and become aggravated by the policy of the OPEC and the tendency of other third world countries to control the supply of raw materials and thus raise prices on the international market. This policy has revealed the vulnerability of the developed countries and the interdependence of all nations among themselves.

The third part of the book deals with the establishment of the new international economic order which will involve greater confrontation rather than cooperation between the rich and the poor. The bargaining power of the poor nations is definitely on the increase, and there are clear charges of international institutions, including the financial ones, being discriminatory in their dealings with the poor countries. Hence major changes in the rules of the game are bound to take place and the quicker resource and technology transfers are effected, the more securely will the northern half of the hemisphere be able to maintain its prevalent standard of living and find new markets for its manufactured goods in the growing demand of the Third World.

The sweep and style of Haq's book that contains not a single mathematical equation nor a geometric figure is certainly one of the reasons why this book on economic matters can be so entertaining.

There is no doubt that it tends to be repetitious. Was there need to reprint two speeches: the first in 1971 and the second in 1972, both of which contain almost the same material, to explain new perspectives on development neatly summarised at the beginning of the second chapter? And again, the unabashed admiration for the Chinese experiment. However, the clear exposition of the subject which of its nature is an intricate one and open to profound controversy, amply makes up for these blemishes.

DEVELOPMENT COOPERATION: 1978 REVIEW. Paris: Organisation for Economic and Development, 1978. Pp. 278. $ 17

This annual report on resource assistance provided by the DAC countries, their new trends and strategies, their deficiencies and failures of their programmes and their future intentions with regard to aid makes interesting reading, both for those who believe that such aid is necessary and serves a useful purpose as well as for those who scoff at such efforts and are deeply distrustful of the motives of the aid-giving countries. Whatever attitude one may wish to hold, nothing is lost by a frank consideration of the actual facts of the case. Although this volume covers 275 pages, the crucial section concerned covers just a few pages, viz. pages 19-37. Within these pages the reader will find an enumeration of basic figures and their implications while the rest of the book is devoted to a discussion of changing trends and the new strategies that need to be implemented in view of the novel situations arising in the LDCs, and in the world at large due to the rise in the price of oil, inflation and unemployment.

Here are the facts, very briefly summarised. In 1977, official development assistance amounted to $ 14.7 billion. This was an 8 per cent increase over 1976, but in real terms the transfer of resources was marginal. Indeed for the DAC group such assistance as measured in percentages of GNP fell from 0.33 to 0.31. About 52 per cent of this aid was directed to low income countries but this share was far from adequate to meet their potential for development. However, on the whole the decline in aid or aid fatigue was not equally shared by the members of the DAC. Apart from the USA, Germany and Japan, the other DAC members increased their aid from 0.47 to 0.48 per cent of their GNP from 1976 to 1977. Further, Sweden, the Netherlands, Norway and Denmark showed very high rates of resource transfers to the developing countries. Some of the reasons for the comparative fall in percentages from the high watermark of 0.62 per cent in 1962 is that the pressures of the 1962 era when post war obligations still existed and the colonial countries were dispossessing

themselves of their colonies, are no longer present. However the DAC aid to the poorest countries has increased from 13 to 18 per cent, but much larger increases are necessary for eliminating poverty in these countries. In the meantime, the OPEC members have contributed some $5 5 billion i e. about 2 per cent of their GNP to assist the poorer countries.

In recent years, the dominant role of private capital in the transfer of resources cannot be overlooked. The total net transfers amounted to $64 billion, two-thirds of which came from private sources, while $18 billion poured in from the private banking sector. Obviously, such commercial capital is provided with relatively short term maturities, and this creates not only over-dependence of the borrowing country on private corporations, but may rapidly increase its debt obligations. Nor have official capital agencies like to IBRD been able to keep pace with such private lending Thus the debt position of the non-oil developing countries now stands at $205 billion.

A great imbalance in the transfer of resources has also been noted. Many countries are not receiving adequate investment capital to achieve balanced economic growth, employment and structural change. The reason for this deficiency lies with both the developed as well as the developing countries. In so far as the developed countries prefer to provide capital project aid rather than cover the costs of local needs such as training programmes, infrastructure and recurring expenses, the developing countries are often precluded from a wider application of the funds for purposes where they are needed most. What the report suggests is that development investment should be stimulated through international institutions and that greater coordination should take place in project priorities and the administrative methods of evaluating and channelling aid by the donor countries.

Apart from these basic issues, the remainder of the volume deals with the progress and participation of the developing countries in the world economy, largely based on the World Bank's World, Development Report,' a discussion on the basic needs approach; the switchover to rural development; and the recent trends in aid policies and financial flows. Out of these, the basic needs approach to development has been eagerly seized upon by the DAC countries as an objective for early implementation. Somehow the choice of this programme has aroused the suspicion of the aid receiving countries who believe the donors will use this opportunity as a method of evading their obligations in the international field, viz that of providing more assistance, and the transformation of the prevailing closed economic structures that preserve the gap between the donor and recipient countries.

From these conflicts of interest, the falling rates of assistance, the slow acceptance of interdependence at the planetary level one does receive a rather bleak picture of the future of the international aid programme which had begun with such high hopes in the early sixties. However the volume under review does try to give a faithful picture of the situation without obtrusive effort to cover up the obvious declining interest in the transfer of resources, and the concomittant difficulties of any programme in an environment where national concerns clash with national obligations. This is a lesson we still have to learn.

YEAR BOOK OF LABOUR STATISTICS. Geneva: International Labour Office, 1978. Pp. 675. SwF 95 (hardcover)

This annual production of the ILO is one of the most useful services performed by the organisation, in addition to its normal functions of protecting the rights of the worker and prescribing humane conditions of work in the form of internationally agreed conventions. Indeed to obtain a fairly reliable panoramic insight into the conditions of the world's labour force, its employment potential, the rates of employment and unemployment, labour conflict, the prices of wage goods, wages and hours of work, at the planetary level, there is no other source except the ILO's *Year Book of Labour Statistics*.

In this volume, a summary of the principal labour statistics in some 180 countries or territories is presented, the data covering the last ten years (1968-1977). For the first time, a special table presents internationally comparable information calculated for mid-term 1975 on total population, and economically active population by sex and age groups for all these countries and the world as a whole.

While this mass of statistical data represents an enormous amount of laborious investigation, how far are the statistics useful and reliable? Do they give us a real or a lopsided picture of the world of labour? The difficulties arise when one begins to examine the methodology that has been used to collect and process the data. For this reason this volume should be read in conjunction with the *Technical Guide* Vol II: *Employment, Unemployment, Hours of Work, Wages* (ILO, 1978) which provides the details regarding the sampling procedures and data processing, the definitions of the terms, and the changes initiated over the years in the search for extensive and more precise terminology to conceptualise the real state of things.

In spite of this constant effort to circumscribe the problems, that arise both at the conceptual and the practical levels, and to deal

with them effectively the ILO will have to adopt a much more creative approach. Thus in the very first category of total and economically active population, it is stated that 'in general, the data on economically active population do not include students, women occupied solely in domestic duties, retired persons, persons living entirely on their own means, and persons wholly dependent upon others'. Already strong objections have been raised regarding women occupied solely in domestic chores Should such woman be regarded as economically inactive? Many of them work for longer hours of the day than their husbands. Perhaps they do not receive direct remuneration for their services. But is their work economically unproductive? Should they be considered unemployed? Don't they belong to the labour force? The whole issue is rather foggy and confused, and therefore needs to be reconsidered and the notion used so far revised. In developing countries women play a crucial role in the maintenance of the family and its well being, and their contribution is incalculable.

Similar difficulties arise from the manner in which statistics on employment and unemployment are gathered in different countries and on which the ILO depends for its raw and processed data. Sometimes a change in the definitions of a concept like employment or the reference period can alter the percentages between employed and unemployed quite appreciably. For instance in India for the 1971 Census, a 'worker' was a person whose main activity was participation in any economically productive work by his physical or mental activity. The difference between 'worker' and 'non-worker' was determined by the phrase 'main activity'. In 1961, even part-time work was enough to classify a person as a 'worker'. As an authoritative source book, the *Year Book of Labour Statistics*, continues to be indispensable in the interrelated areas of social, labour and economic research and policy. Such conceptual differences should somehow be reflected in the tables provided by the ILO if comparative studies of the state of employement in different countries are to be carried out effectively.

For readers in the developing countries, the section on average rates in different countries should prove fascinating reading. In 1977, in Switzerland for instance the average hourly earnings in the various industries from food to jewelery including textiles, paper, chemicals, and machinery was about 12-13 Swiss Francs. In contrast the average monthly earnings in India in many of the same industries was Rs 25-290. Without further elucidating the example, one can get an idea of the difference even if the standard of living in Switzerland is far higher than that of India. Obviously to measure the difference, the wages have to be converted into a common reference currency

by means of particular conversion factors reflecting the relative purchasing power of the currencies concerned. May we suggest that such a table be prepared by the ILO and included in a future *Year Book of Labour Statistics?*

LITERACY IN DEVELOPMENT: A SERIES OF TRAINING MONOGRAPHS. H. S. Bhola (Series Editor). 1. THE USE OF RADIO IN ADULT LITERACY EDUCATION Richard G. Burke, 1976. Pp. 116. N. p. g. 2. TOWARDS SCIENTIFIC LITERACY. Frederick J. Thomas and Allan S. Kondo, 1978. Pp. xi+96 N.p g. 3. VISUAL LITERACY IN COMMUNICATION: DESIGNING FOR DEVELOPMENT. Anne and Fred Zimmer, 1978. Pp. 144. N p.g. 4. EVALUATING FUNCTIONAL LITERACY. H. S Bhola, 1979. Pp. xvi+ 164. N. p. g. Amersham: Hulton Education Publications Ltd in cooperation with Tehran: International Institute of Adult Literacy Methods

Though development agencies have begun to realise that formal education alone cannot solve the problems of the developing world, and their search for alternative delivery systems has intensified, adult literacy is given low priority by most governments. Within this context of limited resources and low motivation, this series of 23 monographs, seven of which have been issued so far, tries to find methods of 'reaching as many people as possible, as quickly as possible, with a reasonable investment of time, money and human energy.' Their slogan is that education is absolutely necessary to motivate the poorest 'to participate actively and fully in the processes of social integration.

Richard Burke feels that, though radio has got some disadvantages, it is better than TV both from the point of view of the cost involved and availability of expertise in the Third World. Besides, the non-literate villager is used to the oral transmission of knowledge. Despite these advantages, he thinks that it cannot succeed unless the field worker functions as the intermediary between the broadcaster and the learner. The former often starts with wrong assumptions about rural needs and attitudes, and the latter usually views radio solely as a means of entertainment, not of education.

Coming to the implementation of the programme, Burke discusses the need of clarifying objectives, limiting the area according to the availability of resources and integrating literacy with development effort. The main point he makes is that education is a two-way process of learning and communication. Radio programmes should be judged according to the impact they make on the villager in these

aspects. He then discusses various types of programmes and, after an analysis of concrete examples, concludes that a combination of formats is the ideal. He makes insightful comments on the production and distribution of programmes, possibilities of involving the non-literate villager in the classes both during and after the programme, of adapting it to the learner's needs and the necessity of constant evaluation.

Frederick Thomas and Allan Kondo start with the assumption that the teaching of science can no longer be ignored if we are convinced that the purpose of literacy is to help the villagers understand the world around them. They feel that the rural population needs to know the basics of how the new inputs work, if they are to adopt them. They already know much about the areas that are important to them. Science literacy should help them to improve this ability rather than give them 'new truths,' for often they may be having more practical knowledge than the field worker. His role then is to help rural participants to develop a vocabulary and concepts suited to their understanding. Experiments suited to the nonliterate adult's standard should be the centre of non-formal teaching.

In the chapters that follow, Thomas and Kondo go on to discuss material to be taught in the course. Though the book does not explicitate it, one can assume that these chapters are meant for the field worker who needs to learn the subject, rather than lesson models for the learner. The later chapters discuss methods of teaching science in non-formal literacy classes. The authors insist that science teaching should not be taken as a means of abolishing superstition but as a means of upgrading local knowledge. But the theoretical chapters seem to contradict this view and leave the reader with the impression that all knowledge has to be imported.

In the book on visual literacy the Zimmers draw the reader's attention to the need of the field worker being socio-economically, politically and visually literate. It has only three well-written chapters. In a humorous opening chapter on understanding visual literacy, the authors give examples of posters and films that have misfired, because they seem to be intended for those who produce them rather than for the villagers who need them. The main reason for this anomaly is that Western ideas are universalised and the local culture and visual idiom is not taken into consideration. Hence the posters and the films, not the people, need to be redesigned.

All along the book, the authors insist that lines and designs mean nothing if they are taken independently of the people who have given them meaning. Hence the need for the fieldworker and the the designer to know the culture of the people i.e., to acquire visual literacy. The second chapter discusses the means of doing it in order

to make the visual media a means of social change. The Zimmers insist that the primary task of the designer is not to draw lines but to *communicate a message to the learner.* *The final chapter discusses* the cultural, technical and economic aspects of designing visual messages to suit the needs of the audience.

If functional literacy is meant to help adults to play a more effective role in society, its success requires constant evaluation. It *should not be of the classical but of the participative type.* However, Bhola cautions the fieldworker against turning it into an amateurs' game of 'pooled ignorance' and suggests that it should be based on expertise which can be acquired without the mystification accompanying professional evaluation. However, right type of ideology is essential to develop a proper system of evaluation.

After discussing various approaches to evaluation, the author explains in detail the mode of operationalising the 3-S model. It is designed in such a way that it can be adapted to various ideologies, not because it is ideology-neutral, but because it bears in mind the implications of each step for various orientations. The author is equally aware of the dangers of giving undue importance to ideology at the cost of the people who should be the primary concern of the fieldworker.

This search for people-oriented methods should be considered *the main merit of the four monographs.* They are written within the limited perspective of using literacy as a means of making government and international development programmes acceptable to the learner, Their ideology learns more towards social integration than structural analysis and change. Concentration, in the first two monographs in particular, is more on changing attitudes of the people in favour of development programmes than making a deeper analysis of these attitudes. But the authors are by and large aware that they do not have the final answer. They realise that adult literacy is only one of the steps and that the broader field of non-formal education has still to be explored. Hence, while limiting themselves to the field of functional literacy, they give indications about the direction to follow in order to adapt their methodology to other ideologies.

The monographs by Bhola and the Zimmers should be considered pioneering in their field. Unlike many books that discuss the need of using the communication media within the 'international' i.e. the Western mode, the authors realise that the visual symbols have a definite parentage and history. They realise that there is no such thing as universal or superior and inferior perception of reality, but that art is culture-bound, that the human being gives meaning to the visual image and that this understanding of social groups should be respected. They show signs of wide experience in various coun-

tries. Similarly, Bhola deserves to be commended for insisting that the learner cannot be made only an object of evaluation and that he should be made to participate in it. He is equally vehement in denouncing the amateurs who would like to have an evaluation based on 'pooled ignorance.' One can willingly go along with his effort at finding a meeting point between popular knowledge and professional expertise. One cannot claim that he has succeeded in this, because a good part of his book is an effort at bringing professional knowledge to the popular level, not at identifying and updating popular knowledge. But his effort is a step in the right direction.

Burke's book though of good quality, cannot be put in the same class as the other two. He has good insights into the needs of the learner yet, though there is a long chapter on the lesson itself, the greater part of the book is devoted to the programme producer, not to the villager. However, the general outlook of respecting rural culture needs to be commended.

Thomas and Kondo begin and end their monograph by saying that the villager has more knowledge than one would like to acknowledge, and that the schools could easily avail of his services to improve the knowledge of their students. Unfortunately most formal institutions take for granted that the non-literate is ignorant and cannot contribute anything to the formal system. However, the theoretical chapters do not seem to be written within this perspective. They almost take for granted that the villager's knowledge is superstitious and that he needs to know 'more truths.' However, the concluding chapters on methodology correct this impression.

Briefly, this is a good series for the fieldworker in non-formal education. One hopes that a cheap Indian reprint will be made available in this country.

MESSAGE FROM THE VILLAGE. Perdita Huston. New York: The Epoch B Foundation, 1978. Pp. xviii+142. N.p.g.

This study which was sponsored by the UNFPA makes fascinating reading since it reports the deeply felt personal views of women in several developing countries—Kenya, Egypt, Sudan, Sri Lanka, Tunisia and Mexico. The women interviewed by the author express themselves in a deeply moving way and, at the same time, reveal the problems inherent in the male-female relationship and the changing roles of women in developing societies. To some extent, one is overwhelmed by the great dignity of these women even when they are engaged in a desperate struggle for survival as persons in their families and in the male dominated culture in which they live.

From their interviews one gets a strong impression that these women had a poor self-image which was reinforced by the cultural sterotypes of the female role and their relations with their husbands. This is seen in the exclusion of women from education and their concentration in a few low status occupations and their absorption in the endless process of child bearing and child rearing. Nor does one get the impression that the bearing and rearing of children has brought them any special emotional satisfaction and personal growth. The message comes clearly through that women in all these countries consider themselves inferior to men, that girls are only meant for marriage and that the role of the woman is to be subordinate to her husband. The poor self-image the women had of themselves is seen in the fact that, when they are asked if they preferred to be born as a man, a good number stated that they would have preferred this. As one woman expressed it very revealingly, 'If I had my way I would be a man because I would have the choice to marry other women, to beat her, to have the last word, yes, that's it, to have the last word.' That the social change which has occurred in these countries has influenced the thinking of these women on social and personal equality is no doubt verified in the statements of these women. Yet it is clear that they themselves accept the fact that reality is far different from their conviction that women and men are equal.

Having said this, it must be pointed out that this is a seriously biased report. All the women without exception appeared to be harassed and oppressed by their husbands who appear to be stereotypes of the oversexed male; all the women seemed to be victims of wife beating, with no option in life except to serve their husbands and bear a large number of children. When a women thinks of any improvement of her life she reports: 'I lead a good life . . . because I have just two children.' The relationship between the wife and husband is seen to be hostile, though one women stated than an ideal relationship between husband and wife should be: 'A good relationship after marriage—love and then friendship.' The author too easily explains unfavourable reactions to the pill or the IUD in terms of ignorance or 'wild rumours.' One gets the feeling that the author like many other crusaders, downplays the painful side-effects of the pill, though it is well known that multinational pharmaceutical companies which market the pill under medical supervision in the West have no qualms about marketing it in developing countries without these restrictions. One does wish that the author had been less manipulative, more independent in her reporting and less influenced by the ideology of the UNFPA which sponsored this book.

THE ROLE OF TRADE UNIONS IN DEVELOPING SOCIETIES. Everett M. Kassalow and Ukandi G. Damachi (eds.). Geneva: International Institute for Labour Studies, 1978. Pp. vi+183. SwF 20

The two major issues that deeply impinge upon the existence and development of the trade unions in the developing countries considered in this study is the natural demand for self-development and-self-reliance within the trade unions and the pressure by national governments to restrain union activity in what they consider to be the national welfare and national interest. Thus the trade union movement is caught between two stools, and its leaders seem to fluctuate between the two points of tension according to their political affiliations, their hold on the membership and the enticements that often cross the path of any trade union leader. This book consists of a number of papers which study the significance of trade union participation in the development process of countries such as Ghana, Singapore, Greece, Chile, Philippines and Korea. The papers are carefully documented, scholarly and well worth serious study. There is also a list of select references which the reader will find useful.

Among the seven countries whose trade union movements have been investigated, none of them has the same distinctive purpose as to make the study a strictly comparable one. This is but natural since each experience is unique in the sense that it is largely the result of the cultural, social, political and economic forces that have been prevailing within the respective country. Thus the study on Ghana highlights the series of crises in the relations between the trade union movement and the successive civil and military governments since independence. Each government has imposed its own type of restraint on the union in view of its economic and social commitments.

In Singapore, the separation of the country from Malaysia brought in its wake the problem of the survival of the new nation and consequently severe curtailment of the trade union rights especially in the field of collective bargaining. The trade union was therefore pressurised into undertaking new activities to retain the loyalty of the workers. In other words, while the economy was thrown open to foreign investment leading to rapid prosperity, the trade unions have adopted a positive role by becoming involved in cooperative ventures, workers' education and welfare programmes. This seems to have contributed greatly to a rapid rise in trade union membership. But equally important is the impetus given to trade union organisations by the establishment of large industries in Singapore. Under the pressure of a tightening wage market, the Government was compelled to set up Wage Councils, based on a tripartite pattern, to

control wage increases in an orderly manner. But the slow growth of the economy in 1974 has created pockets of unemployment which is a new challenge to the unions.

The continuous political instability in Greece and the deep involvement of the political parties in the trade unions have made the latter mere lobbies for the working class in Parliament and the ministries. Possibly as the country industrialises, the younger leaders may adopt a more positive role in defending the rights of workers and settling their wages and conditions of work. The paper on Chile is entitled 'Hypermobilisation in Chile'—to indicate how consciousness among the masses can be awakened but directed with difficulty towards the purposes desired by governments. The awakened masses may be deeply divided by ideological convictions and therefore government dependence on mass following is apt to be illusory. The Chilean example is an interesting one, worth attentive reading.

In the Philippines and Korea, there are clear signs of rather intense government interference in the trade union movement, often motivated for economic and political reasons, viz. to secure higher investment rates in the Philippines and to cope with the effects of the political tensions between the two Koreas in South Korea. In Kenya the government has increased its surveillance of the trade union movement by ever greater control of the industrial Court.

Finally, there is the brief introduction by Professor Kassalow, who judges the evolution of the trade union movement over the last twenty years with the typically American yardstick of the progress or regress of 'collective bargaining' within the Third World countries. Must confrontation and the settlement of basic issues on the American pattern be the model for trade unions in developing countries where, as he writes, there is constant tension between the consumptionist proclivities of the trade unions and the capital accumulation required for development? To a large extent, cooperation and participation are likely to determine the role of the trade unions and their leaders' behaviour and their relations with the government and their managements in the years to come.

STUDIES OF URBAN LABOUR MARKET BEHAVIOUR IN DEVELOPING AREAS. Subbiah Kannappan (ed.) Geneva: International Institute for Labour Studies, 1977. Pp. 234. SwF 25

Since the epoch making essay of Sir Arthur Lewis on 'Economic Development and Unlimited Supplies of Labour,' in which he introduced the division of the economies of LDCs into two main segments, the traditional and the modern or the agricultural and the

industrial, a large number of studies have been undertaken to test and broaden his fundamental thesis. This volume focuses on one segment of the division, viz. the urban or modernised sector, and seeks to deepen the analysis through a number of specific market studies to guide employment policies for the creation of employment and the absorption of migrant labour, and the reduction of open unemployment in the urban areas.

As Kannappan points out in his editorial, urban labour markets are characterised by a high productivity urban sector with superior earnings that starkly contrast with an industrial periphery of lower wage levels and correspondingly lower productivity in the cities and towns. What are the reasons for the persistence of this high wages or high earnings sector which, according to Lewis, is fed by the surplus labour that migrates from the rural to the urban sector? How does such migration affect the employment situation in the towns? What is the utility of dualistic labour market models?

These are some of the basic issues that are treated in the 17 technical papers in this volume. They have been broadly classified into three groups, the first dealing with the conceptual and theoretical aspects, the second with comparative analysis, and the third outlines country experiences. There is also a select bibliography by Teshome Mulat which scholars and students will find most useful. On the whole they present very interesting insights into the functioning of the labour markets in urban areas.

In his brief paper on dual labour markets in the LDCs, Dipak Mazumdar tries to show that constraints of a purely technological nature and organisational requirements are the main causes of the dichotomy in wage earnings. This is an alternative view to that of many others who would place greater importance on social and sociological factors, especially those resulting from economic pressures in the countryside where unlimited supplies of labour prevent agricultural levels of wages from rising above the subsistence level. However Mazumdar admits that the rigidity of his dualistic systems allows for a certain erosion, and that his urban labour market can be fractured and fragmented. But Guy Standing's comments are much more constructive since he commends Hart's distinction between a formal and informal sector in the urban segment or a core and a periphery marked by differences in skill, security and opportunity. It is the 'core' sector in which the 'internal labour market' prevails, where workers within the firm are promoted to new jobs and are provided the training opportunities to avoid the fluctuations of a competitive labour market. They also have the highest earnings and the highest productivity per head since these industries are laregely capital intensive. On the other hand, there are the small industries on the periphery, where low wages and

long hours are normal and where productivity is low. But many of these workers have the opportunity of developing their skills and so become the potential labour pool for the core industries.

Koji Taira discusses the nature and the structure of the internal labour market. Though not too common a phenomenon in LDCs, quite possibly it is expanding because of the advent of large scale industry, especially the multinationals, into these cities. More to the point is James Scoville's study on the need to decompose and disaggregate the modernised segment of the economy or the urban labour markets into their various sectors. He points out that the incomes within these sectors need not follow a consistent pattern since from his Kabul study, some of the traditional industries were productive of higher incomes than the modern, or incomes between the two sectors were practically the same.

Among the country experiences, presumably the experience of Japan related by Solomon Levine is merely illustrative, although by right it should not have been included in a volume concerned with an analysis of conditions in LDCs. But the cases of Jakarta by Sethuraman and Sudan by Kannappan have been well developed and could become models for similar studies or take-off pads for deeper investigations. The case of Yugoslavia is altogether a new type of industrial experiment, in which the concept of labour market requires some radical revision in view of the absence of an entrepreneurial class. Although the experiment of an independent worker management industrial society is highly innovative and original, the resurgent dominance of the single political party—the League of Communists—cannot be left out of account in evaluating the success of the scheme and its effect on manpower planning.

Briefly, the urban labour market still needs a great deal of analysis and research. And this volume marks a stage forward in clarifying the concept, heralding the need for deeper study and foreshadowing the kind of model studies that need to be undertaken.

DAYANANDA SARASWATIH—HIS LIFE AND IDEAS. J. T. F. Jordens. New Delhi: Oxford University Press, 1978. Pp. xvii+ 368. Rs 80

Unlike eulogies written by his followers that proclaim Dayananda Saraswati a saint, or histories of the Arya Samaj that study only the evolution of his thought, Jordens tries to analyse the influence of his society, places, events and persons on his thought and actions. He attains his goal only partially because of his inability to take a distance from his admiration for the one whom be often refers to as 'the Swami.'

The author starts with a study of Kathiawar, the kingdom in which this Brahmin landlord's son belonging to the minority Shaivite sect was born and brought up. He differentiates him from another great person from the region—Mahatma Gandhi who belonged to a Vania family of administrators, and to the majority Vaishnavite sect in an area of strong Jain influence. After his escape from his family, Dayananda was influenced by various groups of sanyasis and schools of thought till his decisive encounter with the great guru Virjananda and his stay at Mathura that left its mark on him. These encounters prepared him for his 'public life' at the mature age of 42, and for preaching at Badrinath, the Doab and in the rest of UP.

This preaching, founding of schools and the disappointing debate at Benaras showed him the futility of attempting reforms in the Hindi heartland and he went on to Calcutta where he came in contact with the Westernised intelligentsia and the rationalist reformers. For the first time he met the Adi Brahmo Samaj that developed a comparative polemic with Islam and Christianity and tried to prove the superiority of Hindusim. He also met persons who spoke in terms of a Hindu nation in a foreign-ruled country, and social reformers who discussed the problems of caste, education and women's progress.

Calcutta forgot Dayananda within a short time, but Dayananda could not forget the profound impact of Calcutta. From a Hindu preacher he became a social reformer and a religious revivalist in order to defend Hinduism against the inroads made by Christianity and Islam. His preaching shifted from the rural to the urban areas, from Sanskrit talks given to the pundits to Hindi sermons to the common man. He also saw the need of going beyond oral preaching and discussion to propagating his ideas through the printed word. Ultimately this *sanyasi* who had renounced all material belongings would go to the extent of buying a printing press for himself, for this purpose.

By observing the divisions in the Brahmo Samaj as a result of Keshub Chandra Sen's quasi-dictatorial policies, Dayananda realised the need of having organisations with proper rules. Thus when he founded the first Samaj in Bombay, he drew up its constitutions with the hope of giving it continuity. He founded similar organisations all over western India especially in his native Gujarat. But when he left the region, the 100-member Samaj of Bombay would be the only one in the whole region. The others had died out. He met with little success in UP though he was better known and appreciated this time than during his previous stay there.

Finally, the peculiar situation in the Punjab led to his success. The Hiudus were in a minority and their dominating caste was the

Khatris, not the Brahmins. The Muslims and the Sikhs controlled the positions of power, and the Christian missionaries were making inroads into the Hindu fold. In this situation, Dayananda provided the Hindus with an alternative to the Christians who responded to the low-caste aspirations, and to the Brahmo-Samaj which was Hindu and reform-minded but Bengali dominated. The Khatris found in the Arya Samaj a reformist organisation of their own that proclaimed the superiority of Hinduism over Christianity and Islam.

The author then goes on to study the final years of the Swami—consolidation of the Samaj, and his attempts to enter the mainstream of Hindu life and become a reformer of the whole society thus averting the danger of the Arya Samaj becoming just one more sect. This involved making compromises with some of his convictions, and reducing the beliefs and creed of the Aryas to the minimum in order to attract the biggest number possible. It is also involved joining Hindu agitations such as the ones for the abolition of cow-slaughter and in favour of Hindi—the 'Hindu language' as against Urdu, the 'Muslim language.' He also made an attempt to win over the princes with the hope that they would spread his ideas. Finally he left his legacy in print in order to make his ideas reach a wider audience. But his success was limited outside the Punjab.

One can agree with the author when he states that he tries to break new ground in the sense that he makes an effort to situate Dayanand within his social surroundings, The reader appreciates the saint much more when he realises that the 'Swami' was not just a prophet inspired from above, but a human being who learnt from all sources and grew with the times. His individualism, independent mind and strong will are clearly brought out.

However, after reading the book one is left with the impression that the author is an admirer who has not made sufficient effort to take a distance from his bias towards the 'Swami'. No scholar can be expected to do serious research without some strong feelings towards the subject of his research. But he is expected to take a distance from these feelings and make an objective analysis of the data. Though Jordens attempts such an analysis, one is left with the impression that often he shows a pro-Dayananda bias. The pundits of Benaras and Bombay are shown as insincere since only the Swami's version of the debate is given, while only evasive reasons are given to explain away his ignorance of Buddhism and the Charvakas (p. 190 ff). He is declared a 'gaint figure' (p. 295) and the 'Indian Luther' (pp. 18 and 33). One cannot deny that Dayananda was an important factor in the transition from rationalist reform to religious revival. But someone who succeeded only in the Punjab and met with very

limited success elsewhere can hardly be given such epithets unless his qualities are exaggerated by an admirer.

Besides, the Swami's reformist actions towards Hinduism are given great importance, but not his communal attitudes. Only passing reference is made to his 'anti-Christian attitude (which) was another element that increased his appeal among a wider section of Hindus' (p. 289) and to the 'resentment against the British combined with a strong anti-Muslim bias' (p.290) Historians have been aware of Dayananda's strong communal feelings and his constant effort not merely to prove the superiority of Hinduism, but to belittle the others by denouncing them as 'killers of cows and men'.

In spite of these limitations in the analysis the author deserves to be commended for his well-documented study that has tried to break new ground and has shown that a religious man is someone who grows with the times and according to the influences he lives with.

SYMBOLS OF POWER: STUDIES ON THE POLITICAL STATUS OF WOMEN IN INDIA. Vina Mazumdar (ed.). New Delhi: Allied Publishers, 1979. Pp. 373. Rs 60

In the introduction to the first volume of a forthcoming ICSSR series on women, Vina Mazumdar poses a number of important questions: was the demand for the vote for women an elitist measure? Why is it that states like Uttar Pradesh, Madhya Pradesh and Rajasthan, known for their feudal attitudes, continue to elect the largest number of women to State Assemblies and Parliament? What about the reservation of seats for women, the one issue on which the Committee on the Status of Women remained divided? Can such a policy, which, despite its drawbacks, has benefited the Scheduled Castes and Scheduled Tribes, be ruled out of hand for another under-privileged section of Indian society?

Reading through the well argued first few pages of the present book of which Dr Mazumdar is the editor, one had hoped to find some answers to these compelling problems in the case studies presented. Instead, we finds a succession of tedious profiles on female voting behaviour in independent India. Admittedly, the editor had included a rider in her introduction: the studies 'do not claim to be major or original' but are mere pointers for more enquiry. However, even these pointers are not always evident or well chalked out.

In one of the better researched pieces, Geraldine Forbes describes the role of various women's organisations in winning the vote for the community between 1917 and 1927. It is interesting to know, for instance, that Gandhi was at first reluctant to have women parti-

cipants in his Salt March; he subsequently relented when women persisted with their claim that they were no less brave and healthy than most men. Basing his analysis on reports of the 1962, 1967 and 1971 elections, S D. Mani points out that between 1962 and 1971 while total voter turnout increased by only 0.58 per cent, the increase in female voter turnout was 2.52 per cent. This difference he attributes to Mrs Gandhi's policies aimed at activising women. In all the elections, while the maximum number of women candidates were fielded by the Congress, the figure was well below the stipulated quota of 15 per cent of the total number. Most women candidates were Hindus, and were fairly well educated.' Mani adds that almost 80 per cent could 'read, understand and speak English.' By and large, Mani felt that his data led him to believe that 'women in India have largely remained inactive and indifferent towards politics' due to a lack of tradition in politics, social backwardness and domestic pressures.

Swaroop Rani Dubey and S. Trikha conclude on the basis of studies conducted in different parts of the country that women by and large, tend to agree politically with their husbands. Elections are regarded as a 'festive occasion,' a welcome diversion from the daily routine. Women's politicisation is still at the level of tokenism; this is the observation of V. M. Sirsikar who feels that while the mass media should be mobilised to propagate the need for women to participate more actively, co-option of women in bodies such as *zila parishads* and municipal corporations should be stepped up. He feels that reservation of seats for women at all levels of political life would not create 'isolated pockets,' but would help in encouraging women to participate more actively.

The case studies on the politicisation of women in Gujarat, Maharashtra and West Bengal provide some data on women and their interests. Of 26 women classified as highly politicised in the Maharashtra sample, all but two are non-Brahmins. The majority are graduates or post-graduates. On the whole, however, Maharashtrian women are not particularly active in politics, though the majority values the right of franchise. At the end of a highly mathematical exercise Nirmala Banerjee tells us that Bengali 'women are at present not willing to take up a more active role in politics.' Generally it is the better educated, upper caste, upper class woman who is more involved.

Part III of the book gives profiles of women involved in the politics of ten states. Some of them deal with the lives and experiences of specific personalities such as K. R. Gouri in Kerala and Rosa Deshpande in Maharashtra. Others combine statistical information with facts about women's organisations, trade union attitudes and so on. Finally, there is an appendix of relevant extracts from

the Report of the Committee on the Status of Women. However, one cannot help concluding that though one may be wiser on how many women go to the polls where, the more important issues remain unresolved. Perhaps a conclusion by the editor somewhat on the lines of the introduction, may have helped in clarifying matters. The right to vote, we take it, is an obvious symbol of power; but that it remains only an empty symbol is something which could have done with more analysis. We have proved our effectiveness in gathering information in innumerable studies ranging from caste attitudes to voting behaviour. What we desperately need is intelligent interpretation and integration of all the data we send our social scientists out to gather. The present book gives plenty of case material; however, it lacks a comprehensive tying-up of loose ends, essential for any edited work to have a lasting impact.

Malavika Karlekar

SMALL IS POLITICS: ORGANISATIONAL ALTERNATIVES IN INDIA'S RURAL DEVELOPMENT. Marcus Franda. New Delhi : Wiley Eastern Limited, 1979. Pp. xii+296. Rs. 45

In an attempt to educate an American audience on the Indian situation during the first eighteen months of the Janata rule, Marcus Franda analyses the obstacles confronting rural development and concludes that Indian villages are indeed moving, much more than the Western press would have their readers believe.

After reviewing the policy of the Congress regime and its priority to heavy industry, the author studies the slow transition to the small scale and rural sectors at the policy level and the obstacles to its implementation by industrialists and the urban middle class. Thus the party whose powerful leaders are rural landholders, can only reach the consensus on increasing production and 'building a floor below which the poverty of any given individual would not fall,' without however 'chopping the top.' This strengthens the middle level farmer who has captured power from the British-era big landlords. The crunch will come if foreign exchange and food reserves inherited from the previous regime were to dwindle.

A cooperative approach, Franda believes, could have taken the benefits of the government's programmes to the poor. But the same local elite has captured these organisations. However, a few major cooperatives, some aspects of the rural thrust of the nationalised banks and some government organisations have played a positive role in favour of the small farmer. Though small scale industry has been suggested as a means of creating employment, only a few propo-

sals look practical, and they have been successful mostly in states like Punjab were an infrastructure favouring the educated middle class existed as a result of the Green Revolution.

Panchayati raj which could have delivered the goods, Franda notes, has also been captured by the local elite But the long-delayed elections under the Janata have thrown up a few younger elements to the fore. Communist-ruled West Bengal in particular is experimenting with the *panchayats* as an implementation agency for the land reforms. Voluntary agencies could provide a major 'receptivity system.' Some of them have in fact tried out innovative programmes during the last two decades. The Janata commitment to work with them can reinforce voluntary action. Non-formal education can provide them with an additional instrument, though political parties are trying both to control the agencies and use non-formal education to expand their base. The Janata could have overcome many of these obstacles and built on the positive points because it had a less corrupt and more committed image in the public mind. But lack of cohesion between its constituent parties and inexperience of the new ministers did not allow this to materialise. Ultimately however, in the author's view, major structural changes are required in the form of the implementation of the land reforms. It is harmpered by the fact that the party has still to find a way to retain the support of the Scheduled Castes and Muslims without losing that of the new landed elite. Their problem is further complicated by the fact that the reforms seem to have been more successful in opposition (mainly Communist) controlled states.

In other words, according to Franda, the last three decades have witnessed a definite shift of power to the rural areas, but the 'small man' is the one with political clout, rarely the poorest. In spite of its rural and 'small man' bias, the Janata too seems to be following an evolutionary policy—not a revolution. The failure to reach the small man may not be attributed merely to the present or past governments, but also to the societal contradictions, and the international situation. But the author feels that ultimately the real question is whether India can develop the rural man in a democratic framework.

The author reminds the reader that the book is a set of journalistic articles meant for an American audience. Hence though an Indian reader may find many details unnecessary, this is one of the better works on India put in the Western reader's hands. It goes beyond ordinary journalism and analyses the background of all the events. But in some aspects the author still remains with the journalists in the sense that he does not always test the accuracy of his information. In 1967 for example, Charan Singh could not have left

the Congress because of his dislike for Nehru who had died three years earlier! However, most of these howlers amuse the reader but do not affect his analysis.

One can clearly see the author's pro-Janata and anti-Congress bias, but one can also notice a definite effort to distance himself from his preferred political incliuation. He does not always succeed. As a result one finds somewhat unsatisfactory situations such as the extremely charitable interpretation given to the Jana Sangh-RSS change of heart towards the minorites, or of the Morarji-Charan conflict, and the somewhat naive explanations given for the Congressmen's and Indira Gandhi's dislike for the Jana Sangh and the RSS. Moreover, the author seems to think that rural development is essentially agricultural development. This assumption can be questioned in the Indian situation. But amid these shortcomings one can definitely see the author's love for India and an attempt to grasp its complex texture. This sympathy has produced a book from which the Western audience for whom it is written can learn much.

PEDAGOGY IN PROCESS. Paulo Freire. Geneva: World Council of Churches and New York: The Seabury Press, 1978. Pp. 178 SwF 16 50

Our thinking on education and development has changed radically because of the earlier work of Paulo Freire, *Pedagogy of the Oppressed* and *Education for Critical Consciousness*. Inspired by a profound humanism, Paulo Freire's central insight focuses on the dialogical nature of education in which the individual is both learner and educator in the dynamic process of reflecting on social practice. Through this process of 'conscientisation' or 'critical consciousness,' the individual begins to understand the basic socio-economic and political contradictions of his society and, because of this, can act as a subject in the shaping of history. The understanding of knowledge as a dynamic process of reflection on social practice has come to be specifically associated with Paulo Freire. In his introduction to this book he points out that, 'Every day, practical activity becomes a permanent object of study. The understanding that results is far more significant than the immediate utilitarian purpose of the activity itself. Thus, activity becomes not only a source of knowledge about itself and its own rationale, but also a means of comprehending other matters related to it.'

This book—which unfortunately will be beyond the reach of those who would profit from it in India and the developing countries—makes an important contribution to our understanding of some of

the basic ideas of Paulo Freire regarding education and development. It consists of 17 letters, 11 of which were written to Mario Cabral and 6 to the 'Team' of educators who were working with Paulo Freire. The letters to Cabral give us an idea of Paulo Freire's vision of the linkages between adult education and the total society; the letters to the 'Team' are programmatic and concerned with the problem of developing adult education within the socio-economic and political context of the local reality. A point that strikes the reader immediately is the remarkable sensitivity shown throughout the book by Paulo Freire to the need of local people to be creative, and hence in the letters he takes great care to avoid the appearance of being 'prescriptive' and to ensure that education in Guinea-Bissau did not succumb to the temptation of 'bureaucratisation'. Thus Paulo Freire rejects the use of primers—'From the beginning of my work in the field of adult literacy education, I have tried to get rid of little primers.' The reason for this is that 'instead of stimulating learners' curiosity, the primers reinforce a passive receptive attitude which contradicts the creative act of knowing.'

Paulo Freire's insistence on the dynamic process of dailogue is to ensure the transition from a 'magical' to a 'critical' or 'scientific' consciousness of social reality and practice. Thus, he affirms the importance of the scientific formation of students because 'This will result in increasing understanding of reality as the students act on that reality. It has nothing to do with "scientism," which mythologizes science and distorts reason.'

From what has been said above it will be clear that Paulo Freire has used the experience in Guinea-Bissau to restate the basic ideas of his distinctive pedagogy of which the two central themes are the creative use of 'generative' words in adult literacy education and the dialogical process of practice and reflection. It is a little disconcerting to see that, while Paulo Freire insists in the introduction that 'experiments cannot be transplanted; they must be reinvented,' he seems to attribute to his experience in Brazil and Chile the kind of 'universal validity' he rejects in theory. However, in spite of his sensitivity to the imposition of ideas and the danger of a prescriptive approach, he tends too frequently to revert to the tools and ideas he developed in Brazil and Chile. Even when he proposes the adaptation of these tools and ideas one gets the impression that Paulo Freire is not acting out his faith in the ability of the people of Guinea-Bissau to create their own materials for adult literacy education.

It is also surprising that Freire excludes altogether from the book the letters he received from his correspondents, either Cabral or the 'Team'. In a very intersting passage Paulo Freire reports

that his wife, Elsa, was moved by the behaviour of President Luiz Cabral, who interupted his speech when a soldier fainted, to say: 'We really have much to learn from a people who live so intensely the unity between word and deed. The individual here is valued as a person. The human person is something concrete and not an abstraction.' One wishes that Paulo Freire himself had preserved in the format of his book this unity of word and practice.

This is a book that must be read by those involved in anyway in education and development. It is true that the basic ideas of Paulo Freire have not changed since his first book, *Pedagogy of the Oppressed*, but here one gets a deeper understanding of the way in which he himself envisages the practical working out of his theoretical understanding of man, his humanisation and his role in making history.

RURAL MIGRANTS IN AN URBAN SETTING. Prasanta S. Majumdar and Ila Majumdar. Delhi: Hindustan Publishing Corporation (India), 1978. Pp. xvi+176. Rs 50

This is an interesting study of two shanty colonies in Delhi. The authors have relied on an anthropological approach which is seen in the 17 case studies presented in Part Two which is entitled 'Profiles'. The first part is concerned with the physical and social environment of the two shanty colonies which were the focus of intensive study. The third part entitled 'Scenario' is an attempt to draw out the policy implications of the case studies and to suggest, in Part Four, some remedies for the dehumanising conditions under which these people were living. This study is well done, the data are well organised and a relatively successful attempt has been made to provide an analytical basis for policy and programme for the betterment of millions of men and women who form the urban poor.

The profiles, of which there are 17, give the reader a vicarious experience of the oppressive environment, the limited opportunties for employment—particularly for women—the difficulties of coping with the social and economic crises of poverty and the brave attempts made by these migrants to make a new life in the cities. The analytical section of the book is well done, though perhaps the authors have not succeeded in bringing out the social organisation and sense of solidarity that mark the migrants who live in the informal urban sector of the city. It is a pity that this study does not make a serious attempt to build on previous studies of slum dwellers in Delhi. For example, T. K. Majumdar's study for the TCPO of slums in Delhi brings out the great importance of the social organisa-

tion in squatter settlements not only for the economic and social support of individuals but for their migration, employment opportunities and even political bargaining with the authorities. Again Majumdar's study shows that the migrants, miserable as they are in the cities, are of the view that migration has improved their situation not only in terms of income but also the general conditions of life such as food, health and clothing.

It is unfortunate that the authors do not identify with the poor whom they are studying with a result that the shanty colony dwellers remain what Paulo Freire terms 'objects'—things to be manipulated for the convenience of the upper strata of society. It is surprising that, in spite of their anthropological approach, the authors share the middle-class point of view that considers urban poverty to be the result of the unreasoned movement of the rural poor into the cities. Thus they state, 'The larger cities are not the right directions for those migrating in distress and despair. For, the cost of living, particularly of housing at a minimum socially desired level of decency and comfort, is so high that the unskilled and semi-skilled worker suffering uncertainties in employment can seldom afford it.' Of course the poor cannot afford housing which is designed for the middle-class, and a genuine understanding of the concept of self-help housing is totally absent from this book. It is surprising that the authors refer to the stategy of growth centres, the mechanisation of agriculture and development of the rural areas to regulate and control the flow of rural-urban migrants. Several studies have shown that growth centres do not function the way urban planners envisage and there is a need to study the motivational factors that induce the rural migration not so much to the smaller towns as to the bigger cities.

In spite of these shortcomings, this book that makes rewarding reading, and it is recommended to all who are interested in the vital field of urban development.

THIRD DIGEST OF INDIAN LABOUR RESEARCH (1968-72). Chandigarh, Simla: Labour Bureau, Ministry of Labour, Government of India, 1977. Pp. iv+4414. Rs 57

It is a common complaint that research in the social sciences is fragmentary and uncoordinated. One of the reasons why research in the social sciences is not cumulative is that it is difficult to get information on research that has been completed or is on-going. Scholars and students in the field of labour will find the *Third Digest* very useful not only to locate previous research on a wide range of topics,

but also to plan their own research in such a way that it can build on the research findings of other scholars.

This *Digest* provides detailed information on no less than 402 research projects. In an excellent introduction, the design of this volume is clearly indicated so as to facilitate the retrieval of information. The format used to report research studies includes *title*, author, supervisor, sponsoring institution, date of commencement and completion, methodology, problems and findings. This format is on the whole well used and one gets a fairly good idea of the scope, if not the significance, of the research project. However, it would seem that this format is not sufficiently flexible. For example (p.177) a study in Aligarh which commenced in July 1971, is stated to be 'in progress.' However, immediately below there is a note by the editors, in a bureaucratic version of 'late news,' to inform us that study was completed in 1973! An examination of the different sections of this *Digest* shows that the research projects tended to be repetitive and not cumulative. This appears to be the case in two sections at least —'management and labour cooperation' and 'working conditions and welfare.'

It is suggested that the reports of the findings need to be better presented so that, like abstracts of articles in scholarly journals, one gets a clear idea of the findings of a research study and their significance. The editors of the *Digest* have to make a decision as to whether it has to be comprehensive—including all research studies—or selective in terms of quality. Much of the research reported in this *Digest* appears to be of mediocre quality, if one is to judge from the presentation of the findings. If the criterion of quality is used in compiling the next *Digest*, there will be less research reported, but then scholars will have the assurance of knowing that the research included in the *Digest* has been screened for quality. If the *Digest* of labour research is not selective it will have more value for historians of labour research rather than for those concerned with the policy and programmatic implications of labour research.

In spite of these shortcomings, this very modestly priced volume is to be welcomed for the information it provides. There is no doubt that in the absence of a comparable annotated bibliography of labour research, the *Digest* will continue to be looked upon as an important reference tool.

STATEMENT OF OWNERSHIP
Form IV (See Rule 8)

1.	Place of publication	New Delhi
2.	*Periodicity of its* publication	Quarterly
3.	Printer's Name Nationality Address	Alfred de Souza Indian Indian Social Institute, Lodi Road New Delhi-110003
4.	Publisher's Name Nationality	Alfred de Souza as above
5.	Editor's Name Nationality Address	Alfred de Souza as above
6.	Name and addresses of individuals who own the newspapers and partners or shareholders holding more than one per cent of the total capital	Alfred de Souza as above

I, *Alfred de Souza, hereby declare that the particulars given above* are true to the best of my knowledge and belief.

Sd/-
Date : January 15, 1979 Alfred de Souza
Publisher

SOCIAL ACTION

A Quarterly Review of Social Trends

VOLUME 29 JANUARY-DECEMBER 1979

INDEX TO VOLUME

ARTICLES — Page

AUTHORS

BOOK REVIEWS